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NATIONAL DEFENSE UNIVERSITY
JOINT FORCES STAFF COLLEGE
JOINT ADVANCED WARFIGHTING SCHOOL



**AIMING AIRSEA BATTLE: AN OPERATIONAL CONCEPT TO COUNTER
CHINA'S MARITIME AREA DENIAL CAPABILITIES**

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by

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A paper submitted to the Faculty of the Joint Advanced Warfighting School in partial satisfaction of the requirements of a Master of Science Degree in Joint Campaign Planning and Strategy. The contents of this paper reflect my own personal views and are not necessarily endorsed by the Joint Forces Staff College or the Department of Defense.

This paper is entirely my own work except as documented in footnotes. (or appropriate statement per the Academic Integrity Policy)

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ABSTRACT

The development in recent years of Anti-Access/Area Denial (A2/AD) strategies and capabilities by countries such as China specifically seeks to exploit current vulnerabilities of the U.S. military, and threatens the continued ability of the United States to project power worldwide in defense of allies and U.S. interests. An upward trend in the quality, quantity, and innovation of China's weapons systems is granting China the ability to conduct effective area denial in the maritime realm. The lines of strategic thought in China accompanying this trend contain several potentially destabilizing concepts, including a lack of transparency and an emphasis upon preemptive attack.

The U.S. military has responded to this situation by starting the development of an operational concept titled AirSea Battle, a multi-service effort between the Air Force, Navy, and Marine Corps. The thesis of this paper is that developing AirSea Battle as a multi-service operational concept is a necessary and appropriate method to counter China's maritime area denial strategies and capabilities. Developing such a concept, however, entails risk, which must be recognized, accounted for, and mitigated. For instance, the United States has taken a risk by announcing the planned efficacy of AirSea Battle before determining its content. It has also taken a risk by letting others, most notably the Center for Strategic and Budgetary Analysis, submit independent proposals for content that may be perceived by China and others as official doctrine.

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CHAPTER 1

INTRODUCTION

In recent years, many American analysts have identified the growth of what they term Anti-Access/Area Denial (A2/AD¹) strategies and capabilities as a threat to the ability of the United States to project power worldwide in defense of allies and U.S. interests, and have advocated an American response to this development. The U.S. military component of this response has been to start development of an operational concept titled AirSea Battle, a joint effort between the Air Force and the Navy.

The goal of an A2/AD strategy is to counter a more powerful adversary by preventing or delaying that adversary's access to a theater of operations, and then to deny that adversary the ability to operate forces within an area. Rather than attacking an opponent's forces on even terms, this goal is accomplished by employing asymmetric methods against the opponent's real or perceived vulnerabilities. These methods may include employing ballistic missiles against forward bases, counterspace and computer network attack, electronic warfare, and submarines. The 2010 Quadrennial Defense Review directed the development of the means to counter A2/AD and to explore alternative concepts of operation to mitigate adversary A2/AD capabilities, the foremost of which is AirSea Battle.

The thesis of this paper is that a multi-service AirSea Battle operational concept is a necessary and appropriate method to counter China's maritime area denial

¹ "A2/AD" is not a standard Department of Defense acronym and does not appear in doctrine, but is the form popularized by the Center for Strategic and Budgetary Assessments (CSBA), a private think tank that has written most extensively about the topic and about AirSea Battle. It is used in this paper for simplicity.

strategies and capabilities. This paper will show that China is developing such strategies and acquiring the capabilities necessary to implement them, and that these pose a distinct threat to the interests of the United States. It will also show that a U.S. response to China's growing capabilities is required, and that a joint AirSea Battle operational concept should be an essential part of this response. Developing such a concept, however, entails risk, which must be recognized, accounted for, and mitigated.

China's strategic environment necessitates an emphasis upon maritime security. Of all its potential adversaries, the United States is the most formidable and the one most likely to have interests counter to its own. With the United States posited as a competitor, China has been developing strategies and tactics with an aim to exploit perceived vulnerabilities of the United States and employ an asymmetric approach to maximize China's advantages.

Method

AirSea Battle is still a work in progress by the U.S. Navy and Air Force and there is no clear indication of what final form it may take or what innovations it will serve to introduce. The goal of this paper is to provide context to this development and remain germane regardless of Navy and Air Force results. It therefore focuses upon how the announcement and development of AirSea Battle appears to multiple intended audiences: the American public, allies of United States that it seeks to reassure, and the decision-makers in China that the United States wishes to influence. The author did not receive information from members of the U.S. military involved in developing AirSea Battle. All sources used were unclassified and publically

available. The intent was not to anticipate or critique the developers, but to present an external view of the driving impetus behind and the potential consequences of the development.

This paper focuses on the problem of Area Denial, separating it from that of Anti-Access. The two concepts are invariably presented as a pair, and in fact there is significant overlap. However, Area Denial can be posed as a primarily military strategy, while Anti-Access is both a military and political one. Anti-Access issues include overflight and basing rights, and legal approaches such as contesting the global commons, which are not readily incorporated in a joint operational concept.

AirSea Battle is necessary and appropriate to counter the Area Denial efforts of China. It is beyond the scope of this paper to assess whether it will be effective or sufficient. This paper is not intended to propose the contents of AirSea Battle in any detail or to recommend tactics for inclusion, but rather to highlight the need and identify issues involved with developing, implementing, and promulgating Air Sea Battle within the current security environment in East Asia and the Western Pacific. It does not lay out recommendations for strategic communications, or a set of talking points for “selling” the concept, and assumes that any message intended by AirSea Battle will arise organically from the concept itself.

This paper takes a threat-based approach vice the capabilities-based approach that the U.S. Department of Defense has moved to in recent years. A threat from a nation is comprised of both capabilities and intentions. For example, India is one example of a country that has growing capabilities that in several ways exceed China’s. However, India’s intentions, both in the form of foreign policy and military

strategies, are not threatening to U.S. interests. Conversely, there are several nations that have intentions inimical to the United States, but lack the capability to turn those intentions into action. China is unique in that it combines both intentions that are potentially counter to U.S. interests, and an upwards economic trajectory which ensures the potential to expand robust and advanced capabilities that are specifically directed against perceived U.S. vulnerabilities.

The sequence of this paper will follow a progression moving from evaluating the challenge, to describing AirSea Battle as a reaction to that challenge, to foreseeing the projected ways ahead. First, Chapter 2 will focus upon China's strategies, and will establish that their goals include the ability to threaten U.S. freedom of maneuver, ability to project power, and ability to maintain a forward presence in the Western Pacific. It will also identify a number of particularly destabilizing concepts arising from China's strategy. Chapter 3 will survey the capabilities that China is acquiring and developing in support of its maritime area denial strategy. Chapter 4 will explore the U.S. reaction to China's A2/AD capabilities, including the announcement of AirSea Battle, and its origins as an analogue of the AirLand Battle doctrine of the 1980's that originated in response to the Soviet threat. Chapter 5 will look at how the AirSea Battle operational concept fits into the hierarchy of current U.S. strategy. Chapter 6 consists of a qualitative risk assessment of certain elements of AirSea Battle that the United States may choose to include. Finally, chapters 7 and 8 will consist of recommendations and conclusions, respectively. This paper intends to be primarily an exploration of risk. This includes the risks of China's maritime strategies leading to misunderstanding and conflict, and the risks of China's

capabilities threatening U.S. interests and those of its allies. It includes the risks incurred by the United States in announcing the intended development of AirSea Battle, itself intended to address the previously stated risks. And it includes the risks of what might be included, or omitted, in a final AirSea Battle product. I will make the case that the risks of not addressing China's capabilities outweigh the risks of developing and articulating AirSea Battle as an operational concept to counter those capabilities. The author's intention is to explain the factors that must be taken into account with regard to formulation, implementation, and promulgation of the concept within the U.S. Armed Forces, in public discourse, and international relations with both China and U.S. allies.

CHAPTER 2

CHINA'S MARITIME STRATEGIES

China's Foreign Policy

China is ruled by an authoritative regime, and as such the primary goal of that regime is its own perpetuation in power. To this end, stifling the merest hint of internal dissent joins conventional military defense as a major goal. Thomas P. M. Barnett has described China's People's Liberation Army as more a personal bodyguard for the Chinese Communist Party than a true military.¹ Another critical goal is to convey the legitimacy of the regime. One means to obtain this legitimacy is through the use of nationalism, displayed through an emphasis on territorial integrity, to include Taiwan, and an anti-Japan stance.² But perhaps the primary means of ensuring legitimacy is a continuation of its dramatically impressive economic growth. This has resulted in a foreign policy in stark contrast with that of the United States. China has presented a narrative of itself as an alternative to a hegemonic, interventionist United States, willing to work through regimes with no preconditions and an unyielding commitment to national sovereignty. This has been described by some as the "Beijing Consensus."³

A growing view in the United States asserts the continuing failure of China as responsible "stakeholder." This perception holds that China is abdicating its

¹ Thomas P. M. Barnett, "Big-War Thinking in a Small-War Era: The Rise of the AirSea Battle Concept," *China Security* 6, no. 3 (2010): 9.

² Fareed Zakaria, *The Post-American World* (New York: W. W. Norton & Company, 2009), 121.

³ Joshua Cooper Ramo, *The Beijing Consensus*, (London: The Foreign Policy Centre, 2004), 12.

responsibility as a rising power in ensuring international security. China's willingness to support any regime in order to secure resources has served to undermine U.S. and international aims in cases such as North Korean and Iranian nuclear talks, Darfur, and Afghanistan.⁴ This was again demonstrated in 2010 by China's response to two provocative acts by North Korea against its South Korean neighbor.

On March 26, 2010, the Cheonan, a South Korean Navy corvette, was sunk by what an international investigation determined was a torpedo attack by a North Korean submarine.⁵ On November 23, 2010, North Korean artillery shelled the South Korean island of Yeonpyeong, killing two. In response, the United States and South Korea participated in naval exercises in the Yellow Sea intended to demonstrate resolve in the face of North Korean provocation, but which were perceived by China as destabilizing and vigorously protested.⁶ China's refusal to consider the possibility of North Korean involvement in the Cheonan attack and correspondingly employ its diplomatic influence can be cited as an inability to assume international responsibilities.

Major concerns of China include opposing "hegemony" by any nation, but implicitly the United States, and what China perceives as the containment strategy of the United States against China. The closest to an official strategy published by the

⁴ Bill Gertz, "Inside the Ring: China Policy Fight," *Washington Times*, October 21, 2010.

⁵ Ministry of National Defense of the Republic of Korea, *Joint Investigation Report: On the Attack Against ROK Ship Cheonan*, (Seoul: Myungjin Publication Inc., September 10, 2010), 220.

⁶ Li Xiaokun and Ma Liyao, "Pentagon Report on PLA 'Unprofessional'," *China Daily*, August 18, 2010, http://www.chinadaily.com.cn/china/2010-08/18/content_11167080.htm (accessed April 25, 2011).

Chinese government has been contained within Defense White Papers, the latest released in 2008. These have been studiously apolitical documents, and do not directly address specific anti-U.S. strategies, except in veiled terms:

China is still confronted with long-term, complicated, and diverse security threats and challenges. Issues of existence, security and development security, traditional security threats and non-traditional security threats, and domestic security and international security are interwoven and interactive. China is faced with the superiority of the developed countries in economy, science and technology, as well as military affairs. It also faces strategic maneuvers and containment from the outside while having to face disruption and sabotage by separatist and hostile forces from the inside.⁷

China views the United States as the most capable and likely nation to thwart Chinese interests. Repeated confrontations between China and the United States have emphasized China's vulnerabilities and led to Chinese frustration. In 1993, the United States erroneously accused the Chinese-flagged container ship Yinhe of carrying chemical weapons to Iran. Despite Chinese protests, U.S. Navy ships forced the Yinhe to pull into Saudi Arabia for inspection by a Saudi-U.S. team, which discovered nothing. The United States did not apologize for the incident, claiming its intelligence was valid.⁸ Besides the obvious frustration of a violation of sovereignty, magnified through the lens of nationalism, this incident highlights the vulnerability of China's economic lifeline, particularly its energy supply.

⁷ Information Office of the State Council of the People's Republic of China, *China's National Defense in 2008* (Beijing: Foreign Languages Press, 2009), 6.

⁸ Gabriel B. Collins, Andrew S. Erickson, and Lyle J. Goldstein, "Chinese Naval Analysts Consider the Energy Question," in *China's Energy Strategy: The Impact on Beijing's Maritime Policies*, ed. Gabriel B. Collins, Andrew W. Erikson, Lyle J. Goldstein, and William S. Murray (Annapolis: Naval Institute Press, 2008), 314.

As China's economy has grown into the second largest in the world, it has seen an increased reliance on maritime commerce, particularly for its energy supplies, and thus has identified protection of its vital sea lines of communications as a major security goal.⁹ Although countries such as Iran, India, Japan, or Singapore could plausibly interfere with Chinese shipping, the United States is viewed by China as the most relevant threat to the sea lines of communication.¹⁰ The United States is one of the few nations capable of executing a naval blockade, and has demonstrated the ability and the will to do so in the form of enforcing economic sanctions against Iraq from 1990 to 2003.

Taiwan is perhaps the primary "legacy" issue between the United States and China, and is often identified as the most likely flashpoint that could lead to conflict. In 1996 the United States sent a carrier battle group to the Taiwan Straits due to increased tension between China and Taiwan. China's inability to counter this move has been characterized as a "wake up call" and cited as a major motivation in Chinese A2/AD development.¹¹

In the last ten years there have been several incidents between the United States and China, heightening tensions and contributing to China's view of the United States attempting "containment" of China. These incidents include the emergency landing of an EP-3 surveillance aircraft on Hainan in 2001 after colliding with a Chinese

⁹ Toshi Yoshihara and James R. Holmes, *Red Star Over the Pacific: China's Rise and the Challenge to U.S. Maritime Strategy* (Annapolis: Naval Institute Press, 2010), 20.

¹⁰ Collins, Erickson, and Goldstein, 314.

¹¹ Bernard D. Cole, *The Great Wall at Sea: China's Navy in the Twenty-First Century*, 2nd ed. (Annapolis, Maryland: Naval Institute Press, 2010), 144.

fighter¹², Chinese harassment of U.S. surveillance ships operating within the Chinese Economic Exclusion Zone (EEZ)¹³, and a Chinese submarine approaching a U.S. carrier in 2006.¹⁴

If the American preponderance of power is the most significant factor in the Chinese strategic environment, the public availability and sheer volume of the American experience makes it one of the largest sources of lessons learned. The dramatic demonstration of American power in the first Gulf War of 1991 made a significant impression. China's effort to derive lessons from this conflict has driven an emphasis on what Chinese doctrine terms "informationalization."¹⁵ As will be seen, a strategic school of thought has arisen in China centered on fostering a Revolution in Military Affairs, originating from and heavily influenced by the U.S. military's transformation efforts.

In all, a rather consistent assessment of the maritime strategic environment has arisen in China: an increased reliance upon maritime commerce, the maritime nature of any conflict over the core national interest of Taiwan, the United States as the most significant threat to Chinese maritime interests, and the evolving nature of warfare that can be derived from the American experience. The varied approaches on how to

¹² "Chinese Poker," *The Economist*, April 17, 2001, <http://www.economist.com/node/576103> (Accessed March 13, 2011).

¹³ Ann Scott Tyson, "China Draws U.S. Protest Over Shadowing of Ships," *Washington Post*, March 10, 2009.

¹⁴ Bill Gertz, "China Sub Secretly Stalked U.S. Fleet," *Washington Times*, November 13, 2006.

¹⁵ Roger Cliff et al., *Entering the Dragon's Lair: Chinese Antiaccess Strategies and Their Implications for the United States* (Santa Monica, CA: RAND Corporation, 2007), 20-23.

respond to and address China's challenges has given rise to several different traditions.

China's Strategic Traditions

Within the past two decades there have been several competing schools of thought in Chinese military circles. The major ones include People's War, Local War, and the Revolution in Military Affairs (RMA). To these three some add a fourth of Unrestricted Warfare. Each poses a different view of the nature of future wars and the capabilities China should pursue.

People's War

The doctrine of People's War was developed by Mao Tse-Tung and was the underpinning of the Chinese military up through the 1970's. It arose from Mao's philosophy and experiences in the Chinese Civil War, and emphasizes a traditional, low-tech defensive approach, taking advantage of China's substantial strategic depths and the large numbers of low-quality forces it could field.¹⁶

In fact, even with the rise and adoption of competing schools, it remains politically necessary to characterize more modern doctrine as People's War, which can sound similar to many corporate claims that "people are our greatest resources".

China's 2008 White Paper on National Defense states:

This guideline adheres to and carries forward the strategic concept of people's war. In accordance with this guideline, China always relies on the people to build national defense and the armed forces, combines a lean standing force with a

¹⁶ Peter Howarth, *China's Rising Sea Power: The PLA Navy's Submarine Challenge* (London: Routledge, 2006), 130.

powerful reserve force, and endeavors to reinforce its national war potential and defense strength.¹⁷

“People’s War” has seen intentional semantic drift towards representing what has been discussed as “whole of government” or “whole of society” approaches in U.S. discussions. Even as realities of warfare drives an increased reliance upon technology and a smaller, more highly trained force, China sticks to the tradition. Bernard Cole quotes General Bai Zixing of the PRC Defense Ministry’s Recruitment Office as saying “the tremendous strength of war stems from the people, and no changes have taken place in the people’s decisive role in warfare.”¹⁸

Local War

Concurrent with post-Mao reforms of the late 1970’s, the Local War school rose to prominence, being officially endorsed by China’s paramount leader Deng Xiaopeng in 1985. This school posits the United States as China’s most likely adversary, and emphasizes the development of Chinese power projection capability. It marked a departure from People’s War in that it recognized the need for technological development and an increase in quality as well as quantity. It advocates an evolutionary approach to development, particularly developing aerial refueling, at-sea replenishment, amphibious capability, and aircraft carriers, and views the goals of the RMA school as unrealistic.¹⁹

¹⁷ *China’s National Defense in 2008*, 12.

¹⁸ Roger Cliff et al., 18.

¹⁹ Michael Pillsbury, *China’s Military Strategy Towards the US: A View from Open-Sources*, (N.p.: U.S.-China Security Review Commission, 3 August 2001), 5, http://www.uscc.gov/researchpapers/2000_2003/pdfs/strat.pdf (accessed April 25, 2011).

The Revolution in Military Affairs

The Revolution in Military Affairs school arose out of observations of the U.S. success in the 1991 Gulf War, and from military debates taking place in the United States during the 1990's. As with Local War, it posits the United States as the most likely adversary. However, it advocates an asymmetric approach, and championed the development of A2/AD capabilities that would specifically take advantage of perceived vulnerabilities of U.S. forces. In his surveys of open-source Chinese publications, Michael Pillsbury notes that proponents of RMA:

...have been calling since at least 1993 for China to attempt to leapfrog the United States in the next two decades by investing mainly in the most exotic advanced military technology, and in new doctrines and new organizations. Judging by the tone of the authors in this "RMA" school, they were not very successful prior to 1999. No senior leader endorsed their calls for Assassin's Mace weapons, or their other approaches to seeking breakthrough capabilities, until the late 1990s.²⁰

The "Assassin's Mace" that Pillsbury refers to represents a technological advancement, weapon, or capability that would grant Chinese forces an overwhelming, decisive advantage over an adversary. The Chinese term for this is a shashoujian, a secret weapon in ancient folktales that the hero needed to slay a monster. Many things have been identified as past or future shashoujian, including U.S. Tomahawk missiles and stealth bombers, nuclear submarines, and electronic warfare.²¹ With the connotation of a furtive surprise attack inherent in the "Assassin's Mace" translation, much attention has been understandably paid by American analysts on shashoujian. Professor Alastair Iain Johnston of Harvard

²⁰ Pillsbury, 5.

²¹ Jason E. Bruzdinski, "Demystifying Shashoujian: China's 'Assassin's Mace' Concept," in *Civil-Military Change in China: Elites, Institutes, and Ideas After The 16th Party Congress*, ed. Andrew Scobell and Larry Wortzel (Carlisle, PA: Strategic Studies Institute, 2004), 317, 343, 346.

University has warned against “othering” the term, noting that the closest analogy would be “silver bullet,” and that it appears in Chinese writings as varied as sports and dating advice. He observes that “Judging from some of the more popular commentary in policy and punditry circles there has been a tendency to ‘orientalize’ the concept, to de-contextualize it and to view it as some inscrutable, likely malevolent, strategic concept that holds the key to understanding how the PLA thinks about asymmetric strategies against US power.”²² Regardless, the Chinese focus on shashoujian reveals a push for a breakthrough technological or tactical innovation specifically suited to exploit an adversary’s vulnerability. As will be seen in Chapter 3, China is exploring several of these options, including an Anti-ship Ballistic Missile (ASBM), which has no current or historical equivalent.

Unrestricted Warfare

In 1999, two senior colonels in the People’s Liberation Army (PLA) published the book *Unrestricted Warfare*. This introduced a line of thought that has been described by some as the fourth school in China’s strategic tradition. The major idea put forth in *Unrestricted Warfare* is that the definition of conflict between nations must be broadened. It posits that war can take place in such areas as economics or cyberspace, and can be waged by people other than those in the military. *Unrestricted Warfare* lists two dozen specific areas in which war can be conceived, from atomic

²² Alastair Iain Johnston, “Towards Contextualizing the Concept of a Shashoujian (Assassin’s Mace),” Harvard University, 2002, <http://www.people.fas.harvard.edu/~johnston/shashoujian.pdf> (accessed October 18, 2010).

warfare and conventional warfare to “ecological warfare,” “financial warfare,” “drug warfare,” and “media warfare.”²³

The term “unrestricted warfare” risks misinterpretation. From an American viewpoint, it calls to mind the unrestricted air and submarine warfare of World War II, in which both the enemy’s military and civilian forces were targeted. It might be conflated with “total war,” but the restrictions it sees being lifted are those on avenues of approach rather than intensity. Unlimited use of nuclear weapons against cities might be an element of Total War, but not particularly Unrestricted War. The restrictions alluded to by the phrase Unrestricted Warfare refers to milieus and avenues of approach rather than degree.

Unrestricted Warfare introduces, or perhaps re-introduces, a new paradigm of hostilities to the West. The United States traditionally viewed hostilities as an either-or proposition. America was rarely “only a little bit” at war. With the advent of nuclear weapons, this paradigm changed, and the concept of limited war was introduced. This was demonstrated most palpably during the Korean War, with the United States steering a course to avoid escalation with China.

Unrestricted Warfare elicited a great deal of attention and concern in American discussions. In testimony before the U.S. Congress Robert Bunker of Counter-OPFOR Corporation said:

The statement “the first rule of unrestricted warfare is that there are no rules, with nothing forbidden” has caused immense detrimental effects on US views and analysis of Beijing’s foreign activities. Every time Beijing engages in an economic, political, cultural, business, media or any other form of foreign

²³ Qiao Liang and Wang Xiangsui, *Unrestricted Warfare*, trans. Open Source Center (Beijing: PLA Literature and Arts Publishing House, 1999), 58.

activity we have now been forced to ask ourselves if this is a component of unrestricted warfare. Regardless of the intentionality involved, we now find ourselves in a “disruptive targeting” situation. We need to respond or create some form of countermeasure to the ‘perceptual trauma’ this ambiguity is causing us in our strategic analysis of Beijing’s foreign activities.²⁴

Although the influence of *Unrestricted Warfare* upon mainstream Chinese doctrine is not clear, it has introduced several disconcerting ideas that must be accounted for, and identified areas of possible misunderstanding between the United States and China that might cause conflict, and should be clarified in national discussions.

Of the four strategic traditions of People’s War, Local War, the Revolution in Military Affairs, and Unrestricted Warfare discussed above, it is the Revolution in Military Affairs school which appears to have become predominant in Chinese military thought. It is this school which is also dictating the development of the A2/AD capabilities of which the United States may lack the doctrine or technology to counter. However, the other three schools will continue to inform Chinese military development, and all should be examined to determine which aspects will prove challenging or provocative.

Destabilizing strategic concepts

There are several concepts present in China’s strategy or within China’s history and strategic culture that are of particular concern to U.S. planners. These include, but are not limited to: an emphasis on a preemptive or surprise attack, the possibility of an unattributed attack, the apparent ease of escalation, the possibility of a spontaneous attack, and a lack of transparency. Not all of these are necessarily

²⁴ Robert Bunker, “Beijing, Unrestricted Warfare, and Threat Potentials” (testimony, meeting of the U.S.-China Economic and Security Review Commission, 29 March 2007).

exclusive to China, but assume additional relevance in the context of China. The following sections will look at the five concepts listed above.

Preemption

Unexpected preemptive attack is a major concern from the viewpoint of the American military. U.S. culture places a focus upon historical cases of strategic surprise, and there is a persistent belief in the nation's vulnerability to a surprise attack and the doubt of the political resolve required to counter it.

In 1994, Professor Thazha V. Paul of McGill University conducted a study of war initiation by weaker powers against "status quo" powers. He attributed the decision to initiate such wars to four primary factors: "politico-military strategy, fluctuations in short-term offensive capability, great power defensive support, and changes in decision-making structure."²⁵ The first two are of particular concern with respect to China.

First, Paul identified a "limited aims/fait accompli" strategy as the one most likely to lead to a weaker power initiating conflict. He described this with:

Such doctrines presuppose quick offensive military thrusts followed by a defensive posture to create a fait accompli situation in order to preserve the limited gains until political settlements can be achieved, mostly through third party intervention. The adoption of offensive-defensive doctrines is based on an assumption that the defense can stand up in the short run and that the stronger status quo power may not be able to use its offensive power successfully to overwhelm a deeply entrenched defensive force. The weaker initiator may expect that the political and military costs of overcoming its defensive position are likely to dissuade the stronger side from

²⁵ T. V. Paul, *Asymmetric Conflicts: War Initiation by Weaker Powers* (Cambridge: Cambridge University Press, 1994), 12.

undertaking a counter-offensive, sufficient in strength to overwhelm the defender.²⁶

The second of Paul's factors is the possession of a short-term advantage in offensive capability, especially if the opponent's window of vulnerability is about to close permanently.²⁷ Such a transitory advantage might be foreseen with China's Anti-Ship Ballistic Missile (ASBM) capability, and the time required for the United States to develop a workable countermeasure to it. Some have expressed concern that a Chinese belief in the ability of a quick decapitation or blinding attack with shashoujian weapons to paralyze U.S. forces would lead to a increased willingness to conduct a preemptive attack to seize such an advantage.²⁸

This concern is expressed in several scenarios posited in American literature on the maritime threat of China. Such a vignette is presented by James Kraska of the U.S. Naval War College in his article "How the United States Lost the Naval War of 2015." He imagines a scenario where China successfully attacks the aircraft carrier USS George Washington in the East China Sea with a DF-21D ASBM, but publically denies the action while spearheading rescue efforts. With few forces present and little capability to react within a short time, the United States is forced to accept the fait accompli and accede to Chinese dominance in the Western Pacific.²⁹

Chinese strategy is ambivalent with regard to preemptive attack. The 2010 DOD Report to Congress notes that Chinese leaders have historically characterized

²⁶ Paul, 26-27.

²⁷ Ibid., 31.

²⁸ Bruzdinski, 353.

²⁹ James Kraska, "How the United States Lost the Naval War of 2015." *Orbis*, Winter 2010, <http://www.fpri.org/orbis/5401/kraska.navalwar2015.pdf> (accessed April 25, 2011).

military operations, including preemptive attacks as “self defense.”³⁰ The report notes that China’s 2008 Defense White Paper states that China will not attack unless attacked first³¹, but cautions:

Yet, the authoritative work, Science of Military Strategy, makes it clear that the definition of an enemy strike is not limited to conventional, kinetic military operations. Rather, an enemy “strike” may also be defined in political terms. Thus: “Striking only after the enemy has struck does not mean waiting for the enemy’s strike passively.... It doesn’t mean to give up the ‘advantageous chances’ in campaign or tactical operations, for the ‘first shot’ on the plane of politics must be differentiated from the ‘first shot’ on that of tactics...If any country or organization violates the other country’s sovereignty and territorial integrity, the other side will have the right to ‘fire the first shot’ on the plane of tactics.”³²

This ambiguity is disconcerting given differences between the United States and China in interpretation of sovereignty and territorial integrity, such as the status of Taiwan and the legality of military surveillance within China’s EEZ.

Escalation

One potential concern, particularly raised by the concepts espoused in *Unrestricted Warfare*, is the concept of uncontrolled and unexpected escalation across domains, the possibility that what is perceived as an attack or aggression in one line of operation will prompt retaliation in another line of operation. Due to the capacity for different thresholds in Chinese and American thinking, this is one of the most disconcerting aspects of *Unrestricted Warfare*. This is reflected in the authors’

³⁰ Office of the Secretary of Defense, *Annual Report to Congress: Military and Security Developments Involving the People’s Republic of China 2010* (Washington, DC: Office of the Secretary of Defense, 2010), 24.

³¹ Ibid.

³² Ibid.

use of the term “violence.” They claim that “while we are seeing a relative reduction in military violence, at the same time we definitely are seeing an increase in political, economic, and technological violence,”³³ without clarifying what that entails.

One example of “economic violence” might be found in the attribution of the Asian financial crisis of 1997-1998 to a coordinated attack by Western companies, including businessman George Soros, acting as economic terrorists:

All of the new warfare methods and strategic measures which can be provided by all of the new technology may be utilized by these fanatics to carry out all forms of financial attacks, network attacks, media attacks, or terrorist attacks. Most of these attacks are not military actions, and yet they can be completely viewed as or equal to warfare actions which force other nations to satisfy their own interests and demands. These have the same and even greater destructive force than military warfare, and they have already produced serious threats different from the past and in many directions for our comprehensible national security.³⁴

This lack of clarity raises the possibility that China may interpret an action in the economic or political realm as a violent attack and respond with force, while the United States might not even have had hostile intent and would not be prepared for such a response. The potential for misunderstanding is high.

Richard Clarke, who served as Special Advisor to the President on Cybersecurity during the George W. Bush administration, expresses a similar concern for escalation in the case of cyber attacks, comparing it to the danger of nuclear escalation during the Cold War:

Today, the risks of miscalculation are even higher, enhancing the chances that what begins as a battle of computer programs

³³ Qiao and Wang, 6.

³⁴ Ibid., 98.

ends in a shooting war. Cyber war, with its low risks to the cyber warriors, may be seen by a decision maker as a way of sending a signal, making a point without actually shooting. An attacker would likely think of a cyber offensive that knocked out an electric-power grid and even destroyed some of the grid's key components (keeping the system down for weeks), as a somewhat antiseptic move; a way to keep tensions as low as possible. But for the millions of people thrown into the dark and perhaps the cold, unable to get food, without access to cash and dealing with social disorder, it would be in many ways the same as if bombs had been dropped on their cities. Thus, the nation attacked might well respond with "kinetic activity."³⁵

Nonattribution

James Kraska's scenario referred to above highlights an additional, particularly frustrating aspect of a preemptive attack, that in which an attacker presents a fait accompli and yet does not admit to the attack itself. This problem of attribution is particularly relevant in the realm of cyberspace. The U.S. Air Force's doctrine on cyberspace operations notes:

Perhaps the most challenging aspect of attribution of actions in cyberspace is connecting a cyberspace actor or action to an actual, real-world agent (be it individual or state actor) with sufficient confidence and verifiability to inform decision- and policymakers. Often this involves significant analysis and collaboration with other, noncyberspace agencies or organizations. While cyberspace attribution (e.g., indentifying a particular IP address) may be enough for some actions, such as establishing access lists (e.g., "white" or "black" lists of allowed or blocked IP addresses), attribution equating to positive identification of the IP address holder may be required for others, such as offensive actions targeting identified IP addresses.³⁶

An example of an unattributed attack in the physical world is the sinking of the South Korean corvette Cheonan. Not only was this a case where an action could not

³⁵ Richard Clarke, "War from Cyberspace," *The National Interest*, December 12, 2009.

³⁶ United States Air Force, *Cyberspace Operations: Air Force Doctrine Document 3-12* (N.p.: United States Air Force, July 15, 2010), 10. <http://www.fas.org/irp/doddir/usaf/afdd3-12.pdf> (accessed April 25, 2011).

be reliably attributed to another state, it was one where other nations, including China, denied or did not place credence in the attribution.

Lack of attribution provides certain advantages for the attacker, including the plausible deniability that covert action permits. The inability to attribute actions could sufficiently delay response to a preemptive attack and increase the probability of a successful fait accompli. If the attribution is uncertain, there may be insufficient political support for retaliatory action within the adversary's country or in the international community. In the context of an A2/AD strategy, an unattributed attack upon naval forces increases the risk of operating forces within an area while minimizing the chance of a counter-attack.

Given that such an anonymous attack could support an A2/AD strategy, China has several means of conducting one. It could employ missiles such as the ASBM described in James Kraska's scenario. Another option would be a computer network attack, provocatively described in *Unrestricted Warfare* as "venturing out in secret and concealing one's identity in a type of warfare that is virtually impossible to guard against."³⁷ Finally, China also possesses a sizeable submarine force that could execute a Cheonan-style torpedo attack or engage in clandestine mining.

Spontaneity

One growing concern is the possibility of the spontaneous initiation of hostilities by organizations or personnel outside the government or military. For example, the bombing of the Chinese embassy in Belgrade prompted the largest

³⁷ Qiao and Wang, 47.

denial of service attack on U.S. computers up to that time, spontaneously by Chinese operating separately from the government.³⁸ In the words of Tony Corn:

The most likely cyber-scenario may not be a PLA-sponsored, anti-U.S. ‘shock-and-awe’ offensive in the context of an invasion of Taiwan, so much as a spontaneous cyber levee en masse on whatever issue that happens to resonate with an increasingly nationalist Chinese public opinion.³⁹

People have a tendency to assume that their opponent has more unity of command than they do. Business deals and statements in the media are considered actions of the government, or at least authorized or permitted. Even if that is not the case, the regime may be tempted to go along with and take advantage of the situation.

Although China’s leaders have stoked patriotic sentiment to manipulate public opinion and deflect domestic criticism of the CCP, they are aware that these forces can be difficult to control once begun and could easily turn against the state.⁴⁰

An advantage of an autocratic government is unity of command across all instruments of national power, to include economic and informational to a degree not possible in a more open, democratic one. China has nationally owned companies that further its interests in areas such as energy, and state-controlled media that permit a centrally coordinated message. However, this reduces the ability of the government of China to distance itself from or repudiate views or actions of its components, at the risk of admitting non-unanimity.

³⁸ Gerrit Gong, “The Beginning of History: Remembering and Forgetting as Strategic Issues,” *The Washington Quarterly*, Spring 2001, 49.

³⁹ Tony Corn, “Peaceful Rise through Unrestricted Warfare: Grand Strategy with Chinese Characteristics,” *Small Wars Journal* (June 5, 2010), 29.
<http://smallwarsjournal.com/blog/journal/docs-temp/449-corn.pdf> (accessed April 25, 2011).

⁴⁰ Office of the Secretary of Defense, 15.

Opacity

One large concern is the nature of the Chinese Communist Party regime, and the opaque nature of its deliberations. There are few assurances of a public debate within China on a path towards hostilities. If it is said that intentions can change overnight, then this is especially true of autocratic regimes with motivations not open to public scrutiny.

The United States has repeatedly and consistently called for greater transparency with regard to China's military spending, strategy and doctrine, and intentions. The United States and others have claimed that China has displayed a lack of full transparency regarding its capabilities and development priorities. This includes a claim that the actual amount that China spends on its military far exceeds the budget numbers it publishes.

The U.S. Department of Defense's *2010 Annual Report to Congress on the Military and Security Developments Involving the People's Republic of China* commended the Chinese military on making "modest improvements in transparency" but claims that the United States continues to view lack of transparency as a source of misunderstanding and miscalculation.⁴¹

There are claims that such concerns are overstated. In the preface to the second edition of his *The Great Wall at Sea*, Bernard Cole also discounts lack of transparency as overstated:

We still face many unanswered questions about China's Navy, but printed materials pertaining to [People's Liberation Army Navy (PLAN)] growth and modernization are available and plentiful in the public domain, especially if one read Mandarin.

⁴¹ Office of the Secretary of Defense, i.

I do not agree with accusations that the Chinese “lack transparency,” despite their penchant for secrecy.⁴²

Nonetheless, Cole lists five aspects of China’s military spending that complicate transparency: the inherent untrustworthiness of statistics, misleading terms, the inclusion of military costs in local or civilian budgets, ill-defined categories used by Beijing, and unclear strategic emphasis.⁴³

In an interview on Hong Kong television after the PRC National Day parade in 2009, PRC military strategist Peng Guanjian claimed that the parade “has shown China’s high transparency by displaying a variety of weapons and military equipment”.⁴⁴ After emphasizing the defensive nature of China’s military build-up and how it logically follows China’s economic growth, he states:

There is no nation in the world that is totally transparent when it comes to revealing its overall military strategy -- which is more critical than transparency in military expenditures. Nonetheless, China has openly declared that its military strategy is to seek peaceful development and to pursue a defensive national defense policy.⁴⁵

In reaction to U.S. critiques of Chinese transparency, Shi Yinhong of China’s Renmin University stated:

China has been doing its best to improve its military transparency, and it will continue to do so. But the decision will only be made by China itself, taking into account its national security...It's currently impossible for China to reach the level that the US demands. Anyone who understands basic

⁴² Cole, x.

⁴³ Ibid., 58-59.

⁴⁴ *Feng Huang Wei Shih Chung Wen Tai*, “Peter Chiu’s Talk,” trans. Open Source Center, Hong Kong Phoenix TV Chinese Channel, October 1, 2009.

⁴⁵ Ibid.

international politics knows there is no absolute transparency, especially between non-allies.⁴⁶

This chapter has surveyed China's maritime strategies in the context of its foreign policy and strategic environment. Recent strategic thought in China has focused upon the three schools of People's War, Local War, and the Revolution in Military Affairs. It is this last RMA school which now forms the basis of China's A2/AD maritime strategy, and which advocates the "leap-frogging" approach to novel technological development which promises to make that strategy particularly effective. Five concepts were explored which may prove to be particularly destabilizing with respect to China's strategies: an emphasis on preemptive attack, the prospect of escalation across domains, the possibility of unattributed attacks, spontaneous attacks, and a lack of transparency. This paper will next examine the capabilities being developed to implement China's strategies.

⁴⁶ Li and Ma.

CHAPTER 3

CHINA'S MARITIME CAPABILITIES

This chapter reviews China's current and planned capabilities in support of a maritime area-denial strategy, and those most directed at perceived vulnerabilities of U.S. forces conducting power projection. These are grouped by three lines of operation: capabilities against aircraft, capabilities against ships, and capabilities targeting adversary sensors and networks. As this paper is focused upon maritime area denial, China's modernization of missile forces that potentially threaten Taiwan and U.S. forward bases are not addressed. Additionally, although China's Anti-submarine Warfare capability is improving, it does not appear to be a primary mission area and remains negligible.¹

Anti-Air Capabilities

China has some of the most formidable air defenses in the world, in the form of at least 40 units of the Russian-built S-300 PMU-1 and PMU-2 air defense systems, and at least 60 HQ-15 and HQ-18 units, the indigenously produced copies of those Russian systems. These are reported to be comparable in performance to the U.S. Patriot missile system.² Additionally, China has helped to fund the development of the upgraded Russian S-400 air defense system, to be licensed and built in China as the HQ-19. This system, currently fielded only by Russia, is specifically designed to counter stealth aircraft.³ A maritime version of the S-300FM system, the Rif-M, is

¹ Jan Van Tol et al., *AirSea Battle: A Point-of-Departure Operational Concept* (Washington, DC: Center for Strategic and Budgetary Assessments, 2010), 19.

² *IHS Jane's Online*, s.v. "S-300" (accessed March 14, 2011).

³ *IHS Jane's Online*, s.v. "S-400" (accessed March 14, 2011).

also fielded on the two ships of the Luzhou DDG class, giving China an increased maritime anti-air capability.⁴

On January 11, 2011, China conducted the first test flight of a new 5th generation stealth fighter, the Chengdu J-20.⁵ This fighter, anticipated to be operational by 2017, joins the 4th generation J-10, the Russian-built Sukhoi Su-27 Flanker, and the Shenyang J-11, a licensed version of the Su-27 as China's front-line fighters.⁶

In the context of an A2/AD strategy, these capabilities serve as the defensive component, directed against the offensive ability of a U.S. force attempting to project air power within China's defensive zone.

Anti-Ship Capabilities

China has built up a substantial anti-ship capability concentrated upon anti-ship missiles carried and launched from multiple platforms including aircraft, surface combatants, and submarines, as well as land-based cruise and ballistic missiles.

In addition to the aircraft listed in the previous section, China also employs the FB-7, FB-7A, and SU-30 MK2 maritime strike aircraft, which are capable of being armed with anti-ship cruise missiles (ASCM).⁷

Since 1999, China has purchased and now operates four Sovremenny class destroyers from Russia. These are very capable surface warfare combatants armed

⁴ Cole, 100.

⁵ Christopher Bodeen, "Chinese Stealth Fighter Makes First Test Flight," *Washington Post*, January 11, 2011.

⁶ Office of the Secretary of Defense, 33.

⁷ *Ibid.*, 31.

with the Moskit anti-ship cruise missile (ASBM). This missile, also known as the SS-N-22 Sunburn, is a sea-skimming weapon with a supersonic, evading flight path specifically designed to defeat the air defenses of U.S. Navy ships.⁸ For coastal defense, China has built large numbers of Houbei class patrol craft, which carry offensive firepower disproportionate to their size in the form of eight C-803 surface-to-surface missiles. The Houbei's ability to operate in shallow water, and a top speed of 45 knots, makes it a difficult target for aircraft and submarines to attack.⁹

China has built the largest submarine force in Asia, and one of the most powerful in the world. China has purchased twelve Kilo class diesel submarines from Russia. Although two of these are the less-capable "export" version, the rest are a more advanced version originally intended for use only by Russia and are assessed by some to be among the quietest submarines in the world. These are capable of firing the SS-N-27B Klub-s anti-ship cruise missile, also known as the Sizzler, a weapon even more capable than the Moskit/Sunburn.¹⁰ The last ten years has also seen a rapid modernization of the indigenously built Chinese submarine force. China has introduced a new nuclear powered attack submarine, the Shang SSN, a new nuclear missile submarine, the Jin SSBN, and a new diesel attack submarine, the Yuan SS.¹¹

The weapon system which has perhaps attracted the most attention and concern in U.S. national security discussions is the Dong Feng DF-21D Anti-ship Ballistic Missile (ASBM). This is a modification of China's existing DF-21 ballistic missile

⁸ Cole, 98.

⁹ Ibid., 104.

¹⁰ Ibid., 96.

¹¹ Office of the Secretary of Defense, 3.

assessed to have been developed with American carriers as the most likely target.¹²

China would be the first nation in the world to field a capability of this type, a concept explored in the writings of Chinese analysts since at least 1997.¹³

Writings by Chinese analysts indicate that Aegis cruisers and destroyers would be considered just as valuable as carriers as targets for an ASBM attack, due to a strike group's reliance upon them for air defense.¹⁴ Having to operate without Aegis coverage would likely increase the risk to a strike group to a level deemed excessive by U.S. leadership, prompting a retreat. The anti-ballistic missile capability of Aegis platforms and the possibility of homing in on their radars for ASBM guidance also increase their value as targets.

The DF-21D would be deployed on mobile launchers distributed within the strategic depths of the Chinese mainland. Based on the U.S. experience against similar mobile launchers for Scud missiles in the first Gulf War¹⁵ and V-1 launch sites in Nazi-occupied France¹⁶, the forces required to neutralize the threat would be substantial, especially where air superiority would not be guaranteed, with dependence upon real-time ISR also increasing substantially.

This group of capabilities provides the core implementation of an A2/AD strategy, focusing on the aircraft carrier as the most potent manifestation of U.S.

¹² Ronald O'Rourke, *China Naval Modernization: Implications for U.S. Navy Capabilities—Background and Issues for Congress* (Washington, D.C.: Congressional Research Service, February 3, 2011), 8.

¹³ Pillsbury, 27.

¹⁴ Yoshihara and Holmes, 108.

¹⁵ V. K. Nair, *War in the Gulf* (New Delhi: Lancer International, 1991), 126.

¹⁶ John Keegan, *Intelligence in War*, (New York: Alfred A Knopf, Random House, 2003), 283-284.

power projection, yet also the most vulnerable due to its size, uniqueness, operating limitations, and political value. China has adopted the approach of the Soviet Union of using simultaneous, multi-axis saturation attacks against high value naval units, using missiles from strike aircraft, surface ships, and submarines. Adapting to the geography of their periphery, China has expanded this mix to include land-based missiles, the ASBM, and missile-capable patrol craft.

Anti-Network and Sensor Capabilities

Potential vulnerabilities in the modern American way of war and its emphasis on precision and digitalization have been identified since its dramatic debut in the 1991 Gulf War. These include reliance upon space assets for navigation and intelligence, surveillance, and reconnaissance and electronic networks. The past twenty years have only seen a dramatically increased reliance upon networks, including the continuous high-bandwidth connections needed to control and monitor the rapidly multiplying U.S. UAV fleet. This critical reliance is seen as a vulnerability of the United States that has yet to be exploited, and China has worked towards developing electronic warfare, space, and cyberspace capabilities to do so.

China's electronic warfare is devoted to blinding U.S. sensors and disrupting U.S. command and control capabilities. The U.S. Department of Defense's *2010 Annual Report to Congress on the Military and Security Developments Involving the People's Republic of China* notes:

An essential element, if not a fundamental prerequisite, of China's emerging antiaccess/area-denial regime is the ability to control and dominate the information spectrum in all dimensions of the modern battlespace. PLA authors often cite the need in modern warfare to control information, sometimes termed "information blockade" or "information dominance,"

and to seize the initiative and gain an information advantage in the early phases of a campaign to achieve air and sea superiority.¹⁷

In accordance with its recognition of cyber as a key future warfare domain, China is one of the leading countries in the world in developing a computer network attack capability. In recent years, multiple infiltration attempts against U.S. Government computer systems have been attempted with various degrees of success that appear to come from China, although any attribution to official PRC government action has been impossible.¹⁸

China is considerably expanding its capabilities in space, both through communications, intelligence, and navigational systems, and the ability to attack the space-based assets of other nations. The U.S. Department of Defense's *2010 Annual Report to Congress on the Military and Security Developments Involving the People's Republic of China* notes:

PLA writings emphasize the necessity of “destroying, damaging, and interfering with the enemy’s reconnaissance ... and communications satellites,” suggesting that such systems, as well as navigation and early warning satellites, could be among initial targets of attack to “blind and deafen the enemy.” The same PLA analysis of U.S. and Coalition military operations also states that “destroying or capturing satellites and other sensors ... will deprive the opponents of initiatives on the battlefield and [make it difficult] for them to bring their precision guided weapons into full play.”¹⁹

¹⁷ Office of the Secretary of Defense, 25.

¹⁸ Ibid., 7.

¹⁹ Ibid., 25.

In 2007, China successfully demonstrated such an ability to shoot down a satellite, employing an ASAT weapon against one of its weather satellites in low-Earth orbit.²⁰ This offensive capability is being complemented by an effort to make China's space presence more robust. In 2000, the PRC launched two satellites into geo-synchronous orbit to comprise the Beidou Navigation System (BNS), providing full-time, all-weather navigational information.²¹ Compared to the Global Positioning System (GPS) of the United States, which consists of satellites in low earth orbits, the Chinese system has the potential to be more difficult to attack.

As it has been shown, China has built up and continues to build up the capabilities to support their maritime strategies, including systems to counter adversary aircraft, ships, sensors, and networks. Although many of these systems, notably submarines and air defenses, are Russian in origin, China has made great strides in indigenous production capability. But it is the novel, "game-breaking" systems that pose the greatest challenge. Even if the technology is in infancy, the novelty drives a need for change. An increase in quality of systems would merely warrant increased presence and proficiency on behalf of the U.S. and its allies. But Chinese innovations in stealth, ASBM, cyber, and space, combined with possible U.S. vulnerabilities such as overreliance upon increasing complex networks, requires a revolutionary approach. The U.S. Navy and Air Force have wagered that this can be provided by AirSea Battle, the origin of which will now be examined.

²⁰ Office of the Secretary of Defense, 36.

²¹ Dean Cheng, "The Chinese Space Program: A 21st Century 'Fleet in Being'?" in *A Poverty of Riches: New Challenges and Opportunities in PLA Research*, ed. J. Mulvenon and A. D. Yang (Santa Monica: RAND, 2003), 38.

CHAPTER 4

AIRSEA BATTLE ORIGIN AND STATUS

Historical Perspective of A2/AD

The development of A2/AD capabilities as a national goal is not new. China is following the approach of historically “continental” powers such as Napoleonic France, Nazi Germany, and the Soviet Union. Each of these countries possessed quantitative superiority of military force on land, but were faced by an overwhelmingly superior naval opponent at sea: the British Royal Navy in the case of 19th century France and early 20th century Germany, and the U.S. Navy in the case of the post-World War II Soviet Union. Without the ability to meet their adversaries’ fleets in decisive engagements, their emphasis was on asymmetric approaches such as “fleets in being,” commerce raiding, and submarine forces. Shifting away from an emphasis on offensive operations such as amphibious landings against their enemies’ shores, the strategy was instead defensive and disruptive. For instance, although unable to venture out into the Atlantic with a significant fleet, Germany was able to exercise maritime area denial against Great Britain within the Baltic Sea by raising the real and imagined risks of operating within it. The Royal Navy steadfastly declined to enter the Baltic Sea throughout both World War I and World War II.¹

The United States has not engaged in combat against a capable maritime area denial capability since the final days of the campaign against Japan in World War II. The U.S. Navy has not been trained and optimized to operate against a capable area denial capability since the time of the Outer Air Battle operational concept against the

¹ Howarth, 76-78.

Soviet Navy in accordance with the Maritime Strategy of the 1980's.² Since the fall of the Soviet Union and in the absence of another credible area denial threat, the U.S. Navy shifted its emphasis to power projection ashore, as articulated in the concepts *...From the Sea* and *Forward...From the Sea*. This even extended to the name of the centerpiece of U.S. naval power, the Carrier Battle Group, being changed to Carrier Strike Group in 2004 to emphasize its role ashore.³ Carrier Strike Groups were operated close to shore and great efforts were made to maximize sortie rates and aerial refueling capacity in support of operations in Bosnia, Kosovo, Iraq, Afghanistan, and elsewhere.⁴

Official announcements and justification

The 2010 Quadrennial Defense Review includes “Deter and Defeat Aggression in Anti-Access Environments” as one of six missions in support of Rebuilding the Force. It identifies China as a potential adversary seeking A2/AD capabilities and sharing only limited information about its intentions.⁵ This document formally announced AirSea Battle as an initiative in support of this mission:

Develop a joint air-sea battle concept. The Air Force and Navy together are developing a new joint air-sea battle concept for defeating adversaries across the range of military operations, including adversaries equipped with sophisticated anti-access and area denial capabilities. The concept will address how air and naval forces will integrate capabilities across all

² Thomas Ehrhard and Robert Work, *Range, Persistence, Stealth, and Networking: The Case for a Carrier-Based Unmanned Combat Air System* (Washington, D.C.: Center for Strategic and Budgetary Assessments, 2008), 242.

³ Vern Clark, *CNO Guidance for 2003* (Washington, D.C.: Department of Defense, 2003), <http://www.navy.mil/navydata/cno/clark-guidance2003.html> (accessed April 25, 2011).

⁴ Ehrhard and Work, 98.

⁵ Department of Defense, *Quadrennial Defense Review Report* (Washington, DC: Department of Defense, 2010), 31.

operational domains—air, sea, land, space, and cyberspace—to counter growing challenges to U.S. freedom of action. As it matures, the concept will also help guide the development of future capabilities needed for effective power projection operations.⁶

AirSea Battle is only one of a number of initiatives to address the Anti-Access and Area Denial challenge, including modernization efforts and enhancements directed at expanding long-range strike, continued development of unmanned underwater vehicles, increasing resiliency of bases, and increased ISR and space capabilities.⁷

Although listed as distinct, these are often discussed as key components of prospective AirSea Battle Concepts, such as the “point-of-departure” concept proposed by the Center for Strategic and Budgetary Assessments (CSBA).

AirLand Battle as Inspiration

AirSea Battle has an intentional historical analogy in AirLand Battle, a joint operational concept developed by the U.S. Army and U.S. Air Force in the 1980’s to counter the Soviet threat in Europe. This concept and the weapons systems development, informed by its tenets, have been credited by the United States and independent observers with the dramatic improvement in the capability and performance of the U.S. military displayed most prominently during the 1990-1991 Persian Gulf War. Tying the development of a new AirSea Battle to this is a deliberate attempt to replicate this success. As emphasized by CSBA, the lineage is one of inspiration and analogy, vice a direct descent.⁸ Although AirLand Battle was directed specifically against the Soviet threat, AirSea Battle is not officially directed

⁶ *Quadrennial Defense Review Report*, 32.

⁷ *Ibid.*, 32-34.

⁸ Van Tol, et al., 7.

at any one specific nation. The current environment is different than the one AirLand Battle was developed within in several significant respects:

1. China is intended to be a partner. AirLand Battle explicitly referred to the Soviet Union as an enemy.⁹
2. AirLand Battle describes nuclear and chemical options as integral elements of the fight.¹⁰ As will be shown, debate continues on whether these and other potentially controversial elements such as maritime blockade and mainland strikes will be components of AirSea Battle.
3. The U.S. military will be working within a fiscally constrained (or fiscally informed) environment for at least the immediate future. The significant increase in military size and funding that coincided with the AirLand Battle era is unlikely.

Center for Strategic and Budgetary Assessments contributions

Perhaps the single greatest advocate and driver of the development of AirSea Battle has been the Center for Strategic and Budgetary Assessments (CSBA), a think tank founded and headed by Andrew Krepinevich. In 2009, Krepinevich wrote the book *7 Deadly Scenarios: A Military Futurist Explores War in the 21st Century*, in which one of the eponymous scenarios is entitled “China’s Assassin’s Mace.”

Krepinevich’s scenario envisions an escalating military standoff between China and the United States, beginning with China’s declaration of “coastal trade enforcement” around Taiwan and threatening to sink ships within Chinese territorial waters while

⁹ *The AirLand Battle and Corps 86: Tradoc Pamphlet 525-5* (Fort Monroe, Virginia: United States Army Training and Doctrine Command, 1981), 2.

¹⁰ *Ibid.*, 28.

establishing a submarine and mine blockade. The United States responds with a “quarantine” of shipping to China, which prompts China to threaten attacks with its submarine force. The chapter ends with the next move left to the United States, with only minimal options short of war and without the confidence of operating carrier groups close enough to Taiwan to affect the outcome.¹¹

In 2008, the CSBA’s Robert O. Work and Jan van Tol wrote an assessment of the *2007 A Cooperative Strategy for 21st Century Seapower*. Although overall supportive, Work and von Tol classified the document as a strategic concept vice a strategy and noted that it did not mention China as a potential maritime competitor at all, or how the U.S. maritime services should respond to it.¹² More specifically, they state:

Never discussed is the golden opportunity to develop a new AirSea Battle Doctrine with the Air Force to deal with rising maritime anti-access/area-denial threats.¹³

In an implicit confirmation of his position, Work became the Under Secretary of the Navy in May 2009, and AirSea Battle found a place in the 2010 QDR.¹⁴

In February of 2010, soon after the release of the 2010 QDR, CSBA released *Why AirSea Battle?* laying out the case for an AirSea Battle concept. In May of 2010, CSBA followed this up with the release of their “Point of Departure” AirSea Battle Concept Proposal. This has been the most comprehensive public articulation of what

¹¹ Andrew F. Krepinevich, *7 Deadly Scenarios: A Military Futurist Explores War in the 21st Century* (New York: Bantam Books, 2009), 172.

¹² Robert O. Work and Jan van Tol, *A Cooperative Strategy for 21st Century Seapower: An Assessment* (Washington, D.C.: Center for Strategic and Budgetary Assessments, 2008), 20.

¹³ *Ibid.*, 22.

¹⁴ United States Navy, “US Navy Biographies - The Honorable Robert O. Work,” United States Navy, <http://www.navy.mil/navydata/bios/navybio.asp?bioID=507> (accessed March 9, 2011).

an AirSea Battle might be, and focuses almost exclusively on how to conduct a major war with China, with a much shorter scenario with Iran as the adversary. In the view of many commentators in China, this document *is* AirSea Battle, with the implied imprimatur of the U.S. government. For example, analysts in the *Beijing Guoji Xianqu Daobao* online journal tied AirSea Battle to recent U.S. actions in the Western Pacific.

If this new operational concept is implemented in the US military, then the repeated shuttling across the waters in the periphery of China by the USS “Washington” aircraft carrier formation in recent exercises and the arrival of the F-22 Raptors, the US Air Force’s most advanced fourth generation fighters, in the sky over the Korean Peninsula can all be interpreted as an effort made by the US military to put into practice this concept. The United States has already set up its chess board. A Chinese Navy personage who wished to remain anonymous told this newspaper: The United States has played the role of a troublemaker successively in China’s Yellow Sea and South China Sea in an attempt to drive a peg into the gate of vitality of China’s ocean security.¹⁵

The publication of their proposed concept has allowed CSBA to seize the initiative and exploit the “tyranny of the first draft,” as it were. As of the date of this writing, the U.S. Navy and Air Force have not released any official documents detailing AirSea Battle.

¹⁵ Liang Jiawen and Yu Shengnan, “China Can Regard United States as ‘Teacher’ for Sea Power Development,” trans. Open Source Center, *Beijing Guoji Xianqu Daobao Online*, August 25, 2010.

CHAPTER 5

AIRSEA BATTLE WITHIN U.S. STRATEGY

What should be the nature of the AirSea Battle? There are numerous options:

- It can be a framework for a joint allocation of resources and a mechanism to influence force structure. This is beneficial in a fiscally constrained or “fiscally informed” environment as the U.S. military anticipates itself entering. One of the products of the AirLand Battle development was a memorandum between the heads of the U.S. Army and Air Force specifying “31 points” upon which the two services could coordinate program funding and priorities.¹
- It can be a Joint Operating Concept (JOC) developed through the Joint Operations Concept Development Process (JOpsC-DP), focused on a future timeframe of 8 to 20 years in the future.²
- It can be a war plan for the Western Pacific, as many interpreted CSBA’s Point-of-Departure Concept to be.
- It can be a white paper, like the Navy’s *Forward...From the Sea*, a broad statement of strategic vision.³
- It can be doctrine, developed through the Joint Doctrine Development System. Although this would fulfill a desire to implement significant

¹ Van Tol et al., 6.

² Peter Pace, *Chairman of the Joint Chiefs of Staff Instruction 3010.02B Joint Operations Concepts Development Process* (Washington, D.C.: Joint Staff, January 27, 2006), A-2.

³ Milan Vego, *Joint Operational Warfare: Theory and Practice* (Newport: U.S. Naval War College, 2007), XII-6.

changes early to most effectively deter China and reassure allies, it would circumvent the vital phase of experimentation, commentary, and development that a concept should proceed through prior to becoming successful doctrine.⁴

This paper argues that AirSea Battle should be a multi-service operational concept, to serve for major combat operations in access constrained environments against modern area denial capabilities. Employing this approach bridges several gaps. It permits addressing a timeframe beyond that of the JOpsC system, back to the immediate present. It permits services the agility to shape development and experimentation. It also presents an opportunity for intellectual recapitalization.

U.S. military policy provides individual services with the mandate to create such concepts, providing they are consistent with doctrine. The Joint Chiefs of Staff instruction for the Joint Capabilities Integration and Development System states:

The Services are responsible for developing Service-specific operational concepts and experimenting within core competencies, supporting joint concept development with Service experimentation, providing feedback from the field, supporting joint experimentation, joint testing and evaluation, and overseeing integration of validated joint [DOTMLPF Change Recommendations].⁵

Milan Vego of the U.S. Naval War College states: “An operational concept is intended to provide a general framework and procedures for the employment of one’s combat forces to accomplish an operational or strategic objective through the conduct

⁴ Vego, XII-33.

⁵ Stanley A. McChrystal, *Chairman of the Joint Chiefs of Staff Instruction 3170.01G Joint Capabilities Integration And Development System* (Washington, D.C.: Joint Staff, 1 March 2009), C-3.

of major operations and campaigns.”⁶ He notes how the services often confuse the idea with a tactical concept, or with a Concept of Operations (CONOPS). Examples of Operational Concepts given by Vego include the U.S.’s AirLand Battle concept and Operational Maneuver from the Sea, the Soviet Union’s Deep Operations, and Nazi Germany’s Blitzkrieg, which he credits as the original air-land battle concept.⁷

Place in U.S. Strategy

A common refrain is that an effective strategy needs a threat.⁸ This is not necessarily true, but a threat can serve as a focus, resulting in a more satisfying, reassuring strategy. A strategy for an unknown or ambiguous threat can appear incomplete. Yoshihara and Holmes summarize the frustration:

Is it possible to orient a people, their government, and their military absent a tangible threat to plan around? This is not a new observation; it came up during the 1990s’ debate over “capabilities-based planning,” which abstracted U.S. military capabilities from the threats these capabilities would be used to counter. If sea-service leaders studiously avert their gaze from China’s rise, are they not tacitly admitting that the United States does not need a dominant battle fleet? Active-duty officers in particular fear diffusing the rationale for a vibrant fleet, and being caught flatfooted should a peer competitor emerge. They understand it is easy for an adversary to change its intentions, and it is hard for navies to rebuild capabilities allowed to atrophy amid a seeming era of good feelings. This is a basic fact of life in an industrial age.⁹

Whatever the advantages of explicitly naming a threat country, political considerations usually prevent this. Dissembling in publically available documents is

⁶ Vego, XI-89.

⁷ Ibid., XI-89.

⁸ Yoshihara and Holmes, 185.

⁹ Ibid., 202.

common. For instance, the German Naval Law of 1900 announced and funded an accelerated battleship construction plan, which has been credited with sparking a frantic naval arms race that culminated in the First World War.¹⁰ Yet Admiral von Tirpitz's justificatory memorandum appended to the law never actually mentioned the United Kingdom by name, instead focusing on an unnamed great power: "To protect Germany's sea trade and colonies in the existing circumstances there is only one means – Germany must have a battle fleet so strong that even for the adversary with the greatest seapower a war against it would involve such dangers as to imperil his position in the world."¹¹ No reader, and certainly none in the Royal Navy at the time, is left with doubt as to the identity of this "adversary with the greatest seapower." And yet this reluctance to publicly name likely adversaries persists: U.S. documents refer to a "near-peer competitor," while Chinese documents refer to a "hegemon" practicing "containment." Close reading is required of U.S. national security documents to identify how a military doctrine addressing China's developing strategies and capabilities supports stated U.S. national security objectives.

This section will place AirSea Battle within the hierarchical structure of official U.S. Strategy, and describe the linkages to national goals. The primary documents are the 2010 National Security Strategy, the national defense strategy included in the 2010 Quadrennial Defense Review, the 2010 National Military Strategy, and the Cooperative Strategy for 21st Century Seapower, put forward by the chiefs of the Navy, Marine Corps, and Coast Guard in 2007.

¹⁰ Yoshihara and Holmes, 58.

¹¹ Archibald Hurd and Henry Castle, *German Sea-Power: Its Rise, Progress, and Economic Basis* (London: John Murray, 1913), 348.

As one moves downward in the hierarchy, the trend is to move from describing China as a partner to engage, towards an adversary to deter and defeat if necessary. Is the statement “The United States needs to develop AirSea Battle to counter China” consistent with national strategies? As will be discussed in Chapter 6, two risks associated with AirSea Battle are that using it as a strategic communication tool prior to development will potentially undermine its effectiveness and that it may have an effect on U.S. relations with China counter to U.S. political and strategic objectives. The goal of this section is to demonstrate that naming China as a driver behind AirSea Battle is not inconsistent and is in fact a logical step in U.S. national strategy.

Instead of a traditional end-ways-means format, the 2010 National Security Strategy lays out four “enduring national interests:” Security, Prosperity, Values, and International Order. Each of these have a number of supporting “initiatives.” Of note, none of the six initiatives contained under Security are related to conducting power projection in an A2/AD environment, or addressing nations such as China as potential competitors.¹² China is specifically addressed in the initiative to “Build Cooperation with Other 21st Century Centers of Influence” in support of “International Order:”

We will continue to pursue a positive, constructive, and comprehensive relationship with China. We welcome a China that takes on a responsible leadership role in working with the United States and the international community to advance priorities like economic recovery, confronting climate change, and nonproliferation. We will monitor China’s military modernization program and prepare accordingly to ensure that U.S. interests and allies, regionally and globally, are not negatively affected. ...But disagreements should not prevent

¹² Barack Obama, *National Security Strategy* (Washington, DC: The White House, 2010), 17-27.

cooperation on issues of mutual interest, because a pragmatic and effective relationship between the United States and China is essential to address the major challenges of the 21st century.¹³

This approach signals a shift in emphasis from the previous administration's position, as laid out in the 2006 National Security Strategy, which urged China to become a "responsible stakeholder"¹⁴ and warned:

China's leaders must realize, however, that they cannot stay on this peaceful path while holding on to old ways of thinking and acting that exacerbate concerns throughout the region and the world. These old ways include:

- Continuing China's military expansion in a non-transparent way;
- Expanding trade, but acting as if they can somehow "lock up" energy supplies around the world or seek to direct markets rather than opening them up – as if they can follow a mercantilism borrowed from a discredited era; and
- Supporting resource-rich countries without regard to the misrule at home or misbehavior abroad of those regimes.¹⁵

The capability that AirSea Battle seeks to develop is not included in any initiative or enduring interest in the 2010 NSS, but is addressed in the section titled "Strengthening National Capacity – A Whole of Government Approach," which includes:

We are strengthening our military to ensure that it can prevail in today's wars; to prevent and deter threats against the United States, its interests, and our allies and partners; and prepare to defend the United States in a wide range of contingencies against state and nonstate actors. We will continue to rebalance our military capabilities to excel at counterterrorism,

¹³ Obama, 43.

¹⁴ George W. Bush, *National Security Strategy* (Washington, DC: The White House, 2006), 41.

¹⁵ *Ibid.*, 41-42.

counterinsurgency, stability operations, and meeting increasingly sophisticated security threats, while ensuring our force is ready to address the full range of military operations. This includes preparing for increasingly sophisticated adversaries, deterring and defeating aggression in anti-access environments, and defending the United States and supporting civil authorities at home.¹⁶

The current U.S. National Defense Strategy is contained at the beginning of the 2010 QDR report, and derives its four Defense Objectives from the Strengthening National Capacity section of the NSS quoted above: “prevail in today’s wars, prevent and deter conflict, prepare to defeat adversaries and succeed in a wide range of contingencies, and preserve and enhance the All-Volunteer Force.”¹⁷ Defeating aggression by adversary states armed with advanced anti-access capabilities is listed as a challenge under the objective “Prepare to Defeat Adversaries.”¹⁸ China is not mentioned by name in this section of the QDR beyond a quick reference to it helping to “reshape the international system.”¹⁹ Outside of the NDS section, China is addressed in the longest section of the document, on Rebalancing the Force. It is here that the key mission area “Deter and Defeat Aggression in Anti-Access Environments” is identified, and China’s A2/AD efforts described, along with the direction of AirSea Battle development quoted in the previous chapter of this paper.²⁰

The most recent U.S. National Military Strategy (NMS) was released in February 2011, and establishes four National Military Objectives: Counter Violent

¹⁶ Obama, 14.

¹⁷ *Quadrennial Defense Review Report*. v.

¹⁸ *Ibid.*, 15.

¹⁹ *Ibid.*, 7.

²⁰ *Ibid.*, 31-32.

Extremism, Deter and Defeat Aggression, Strengthen International and Regional Security, and Shape the Future Force.²¹ The NMS appears to take a step back from the QDR's implicit linkage between China and AirSea Battle, addressing the two under separate objectives. The section on Deter and Defeat Aggression alludes to AirSea Battle:

Defeating these strategies will require Joint Force doctrine to better integrate core military competencies across all domains and account for geographic considerations and constraints. These core military competencies include complementary, multi-domain power projection, joint forcible entry, the ability to maintain joint assured access to the global commons and cyberspace should they become contested, and the ability to fight and win against adversaries.²²

Yet China is not referred to under Deter and Defeat Aggression, but rather under Strengthen International and Regional Security, echoing the cooperative approach of the National Security Strategy:

We remain concerned about the extent and strategic intent of China's military modernization, and its assertiveness in space, cyberspace, in the Yellow Sea, East China Sea, and South China Sea. To safeguard U.S. and partner nation interests, we will be prepared to demonstrate the will and commit the resources needed to oppose any nation's actions that jeopardize access to and use of the global commons and cyberspace, or that threaten the security of our allies.²³

The U.S. "A Cooperative Strategy for 21st Century Seapower" was released in October 2007, and serves to guide the U.S. Navy, Marine Corps, and Coast Guard.

²¹ Michael G. Mullen, *The National Military Strategy of the United States of America* (Washington, D.C.: Chairman of the Joint Chiefs of Staff, February 8, 2011), 4.

²² *Ibid.*, 8-9.

²³ *Ibid.*, 14.

Notably, China is not mentioned in this document. The portion most relevant to China and AirSea Battle is the section on Sea Control as a core mission:

The ability to operate freely at sea is one of the most important enablers of joint and interagency operations, and sea control requires capabilities in all aspects of the maritime domain, including space and cyberspace. There are many challenges to our ability to exercise sea control, perhaps none as significant as the growing number of nations operating submarines, both advanced diesel-electric and nuclear propelled. We will continue to hone the tactics, training and technologies needed to neutralize this threat. We will not permit conditions under which our maritime forces would be impeded from freedom of maneuver and freedom of access, nor will we permit an adversary to disrupt the global supply chain by attempting to block vital sea-lines of communication and commerce. We will be able to impose local sea control wherever necessary, ideally in concert with friends and allies, but by ourselves if we must.²⁴

As multiple analysts have noted, the unnamed adversary alluded to here is unmistakably China, the only country with a growing number of both diesel and nuclear submarines.²⁵ Yoshihara and Holmes characterize this document as describing a logic of seapower, in contrast to the 1986 Maritime Strategy, which described the grammar of seapower in relation to countering the Soviet Union.²⁶ Robert Work and Jan van Tol, although generally enthusiastic towards the document as a whole, claimed that it would be more accurately classified as a “Vision” than a “Strategy.”

AirSea Battle does run the risk of strategic dissonance. United States strategic documents strive to achieve a balance between promoting cooperation with China as

²⁴ U.S. Navy, Marine Corps, and Coast Guard, *A Cooperative Strategy for 21st Century Seapower* (Washington, D.C.: Department of the Navy, October 2007), 13.

²⁵ Yoshihara and Holmes, 199.

²⁶ *Ibid.*, 199.

a partner and hedging against the possibility of China becoming an adversary. By placing China proximate with efforts to defeat A2/AD and AirSea Battle, the QDR approached the intersection between provocation and deterrence. Based on a reasonable assessment of the current and projected strategic environment, China is developing the most ambitious combination of maritime capabilities and tactics. The development of concepts to react to and anticipate such attempts is in agreement with the military's need to preserve the maximum range of options for a national leadership. AirSea Battle must adhere to policy, but also be able to be useful under any future policy, which may sway towards one end or the other of the partner-adversary continuum with respect to China.

CHAPTER 6

RISKS

Just as the United States intends to use the development of AirSea Battle to address the risks presented by China's maritime area denial strategies and capabilities, there are risks involved with pursuing that concept development.

The United States has run a risk by announcing AirSea Battle before having any content within it. Having created a title, the United States must now produce novel and effective content for the concept to maintain credibility. Indicative of the skepticism this sequence arouses, the panel on AirSea Battle at the WEST 2011 Conference held by AFCEA International and the U.S. Naval Institute was entitled "Air-Sea Battle: Next Big Thing or a Flash in the Pan?"¹

Another risk has been run by effectively permitting CSBA the tyranny of the first draft. By introducing their point of departure, they have controlled the direction that AirSea Battle must continue upon or repudiate. Many published arguments against AirSea Battle have been specifically against aspects of CSBA's Point of Departure concept, not against the idea of developing a concept itself. A worthwhile starting point for discussing risks of AirSea Battle is to examine the assumptions made by CSBA in their ASBC. These are:

1. The United States will not initiate hostilities
2. Mutual nuclear deterrence will be maintained
3. Indication and warning will be limited
4. Japan and Australia will remain U.S. allies in the fight.

¹ WEST 2011: After the Long War: What's Next? "Panels and Speakers," AFCEA International and U.S. Naval Institute, <http://www.afcea.org/events/west/11/speakers.asp> (Accessed March 9, 2011).

5. Sanctuary status will not be afforded to Chinese territory
6. Space will be contested
7. A prolonged war favors the United States ²

Other than assumptions 1 and 3, which are fairly “safe,” significant objections have been raised to all of these, and will be among the risks addressed below.

Use as Strategic Communications

Toshi Yoshihara and James R. Holmes of the U.S. Naval War College claim three criteria that must be met for a successful maritime strategy: it must provide guidance to forces, it must elicit public support and resources, and it must be accepted and ideally supported by allies.³

By publically touting AirSea Battle, the U.S. Department of Defense leadership is using it more like a strategy or vision vice an operational concept, doctrine, or war plan. This complicates the effort by introducing multiple audiences: the domestic public and decision makers in the U.S. government, allies, and potential adversaries such as China itself. This raises the expectation of a public, unclassified version. Many issues arise in the harsh light of public scrutiny, without the benefit of intellectual freedom that classification grants.

Many in China will see themselves targeted regardless of wording and nuance. For instance, Chinese reaction to the 2007 Maritime Strategy was one of extreme

² Van Tol et al., 50-52.

³ Yoshihara and Holmes, 200.

skepticism.⁴ Robert Work and Jan van Tol have argued that vague wording that requires “reading between the lines” invites unintended interpretations.⁵

Relations with China

In the relatively short time since the announcement of the start of the AirSea Battle development there has been some reactions in the Chinese media, indicative of how the final concept may affect U.S.-China relations. Many focus on CSBA’s proposed concept as to what AirSea Battle will be, and accordingly characterize it as a “blueprint” for all-out war between the two countries.⁶

There is a certain amount of strategic dissonance with naming China as the potential adversary of a military concept. As shown in Chapter 4, the 2010 National Security Strategy intentionally omits any reference to China as an antagonist, in what many perceived as an open invitation for cooperation.⁷ The development of AirSea Battle can be directly tied to only one initiative under the 2010 NSS: “Ensure Strong Alliances” in support of the enduring national interest of International Order. Developers and implementers of the concept must be aware of how it may impact the other initiatives in support of this interest: “Build Cooperation with Other 21st

⁴ Yoshihara and Holmes, 203.

⁵ Robert O. Work and Jan van Tol, *A Cooperative Strategy for 21st Century Seapower: An Assessment* (Washington, D.C.: Center for Strategic and Budgetary Assessments, March 26, 2008), 25.

⁶ Peter J. Brown, “Gates closed out of China,” *Asia Times Online*, June 12, 2010, <http://www.atimes.com/atimes/China/LF12Ad02.html> (accessed April 25, 2011).

⁷ Zhang Yongjin, “Chinese Analysts Dissect The U.S. National Security Strategy 2010,” *EAI Background Brief No. 543*, July 15, 2010, <http://www.eai.nus.edu.sg/BB543.pdf> (accessed March 9, 2011), 6.

Century Centers of Influence,” “Strengthen Institutions and Mechanisms for Cooperation,” and “Sustain Broad Cooperation on Key Global Challenges.”⁸

Official announcements concerning AirSea Battle do not explicitly target China, and U.S. leadership repeatedly emphasizes this. A group of naval strategists writing in the *US Naval Institute Proceedings* has described this element as “naming names,” writing:

The United States has been careful not to paint China as a threat or engage in activities that could lead to an arms race. This may be changing, and the development of the [AirSea Battle Concept (ASBC)] may contribute to this change.

By actively and publically planning, training, and equipping a joint air-sea force to confront even something as benignly described as a “pacing threat,” the United States is implicitly challenging China’s military influence in Asia. It is one thing for the independent thinkers at CSBA to issue a set of reports and conceptual papers on the ASBC; it is quite another for Navy and Air Force staffs to collaborate on a comprehensive approach to counter PLA systems, doctrine, and operational plans.⁹

China has been presented as both a potential partner and a potential adversary, and current policies and strategies relating to China are focused upon balancing the two. AirSea Battle, particularly a version that includes provocative elements, risks feeding Chinese fears and paranoia. If developed without all issues in mind, it also risks derailing larger strategies focusing on engagement and developing China as a partner. AirSea Battle would be a concept to deter and counter one kind of situation that can arise with China. It cannot serve as a substitute for strategies and policies to address the entire spectrum of situations.

⁸ Obama, 40-47.

⁹ Jose Carreno et al., “What’s New About the AirSea Battle Concept?” *USNI Proceedings* 136, no. 8 (August 2010), 58.

Use of Nuclear Weapons

As previously mentioned, nuclear weapons were an integral component of AirLand Battle. The concept even presented the option of tactical nuclear attack as preferred at some points early in an enemy offensive, but was realistic in the view that permission might not be forthcoming.¹⁰

A significant issue, particularly with China, is the ambiguity involved with determining the nature of a ballistic missile attack. China's ASBM in development uses the same DF-21 missile frame as its nuclear ballistic missiles. The United States has encountered similar concerns with the development of Prompt Global Strike, its own program for delivering conventional warheads via modified ICBMs. The ambiguity issue led Congress to cancel funding for the SSBN launched variant of Prompt Global Strike. Options for resolving this ambiguity with adversaries and other concerned parties such as Russia include segregating launch sites, employing different, recognizable trajectories, and payload delivery vehicles with the ability to maneuver and avoid overflight of selected territory.¹¹

Sanctuaries

In their proposal, CSBA assumes that there will be no sanctuaries; no areas off limit for attack. They thus include maps of targets throughout the territory of mainland China for potential strikes in a conflict.¹² These maps have been a focus of

¹⁰ *Tradoc Pamphlet 525-5*, 12.

¹¹ Amy F. Woolf, *Conventional Prompt Global Strike and Long-Range Ballistic Missiles: Background and Issues* (Washington, D.C.: Congressional Research Service, October 25, 2010), 12, 16.

¹² Van Tol et al., 59.

attention in Chinese and other circles. Thomas P. M. Barnett summarizes the impression as:

China parks no carriers off our coast, nor does any wargames up close, nor has any air force bases within strike range. We have all those on China, and we publish war plans in detail saying we'll bomb their entire country and destroy all their shipping and sink all their naval vessels - for starters!¹³

Mainland strikes risk escalation. China may be intentionally taking advantage of this, aware of the political advantage the collateral damage would give it.¹⁴

Michael McDevitt, a former Director for Strategy, War Plans, and Policy for the U.S. Pacific Command states:

What I am suggesting is that there is a fifty-year-old strategic tradition of unwillingness to permit the direct application of U.S. military power to the Chinese mainland. Now that China has a credible nuclear arsenal, it seems even less likely that the United States would attack China directly. This would be an interesting but essentially irrelevant and academic point were it not for the possibility of confrontation over Taiwan. I have no particular insight into any U.S. contingency planning on this issue, but were I still the director for strategy, war plans, and policy for the Pacific Command, I would certainly consider in planning for any military intervention in support of Taiwan that land-attack options were off the table, that the only engagements that would be permitted by the National Command Authority would be on, over, or under the water.¹⁵

Although not stated, it is an implicit assumption that the United States will not use ground forces in a conflict with China. No one in the United States is even

¹³ Thomas P. M. Barnett, "TIME on PACOM versus WAPO on PRC's DF-21D," Thomas P. M. Barnett's Globlogization, entry posted December 29, 2010, <http://globlogization.wikistrat.com/globlogization/2010/12/29/time-on-pacom-versus-wapo-on-prcs-df-21d.html#ixzz1GDBtIlVM> (Accessed March 10, 2011).

¹⁴ Yoshihara and Holmes, 75.

¹⁵ Michael McDevitt, "Roundtable Net Assessment – Objective Conditions versus the US Strategic Tradition." In *Asia and the Pacific: US Strategic Traditions and Regional Realities*, ed. P.D. Taylor (Newport, Rhode Island: Naval War College Press, 2001), 105.

considering employing ground troops on the Chinese mainland; an invasion is not within the realm of feasibility. By the philosophy of AirLand Battle, this means that any major conflict between the two nations will not be decisive. Nevertheless, some have posited a use for the Marine Corps in the AirSea Battle concept. Admiral Robert Willard, commander of the U.S. Pacific Command, has been a proponent of including the USMC within AirSea Battle, which it now is.¹⁶

Expense

AirSea Battle, and other means of countering the A2/AD challenge, has been identified as a prominent goal for the United States military, and will greatly affect doctrine, training, and acquisition priorities of the Navy, Air Force, and other services.

Means of countering A2/AD capabilities will be expensive. The historic approach, such as ASW efforts in World War II, employed very large number of air and naval units. More modern approaches, such as those countering Soviet reconnaissance-strike capabilities, concentrated on technological breakthroughs and advanced systems which in recent years have become increasingly expensive with longer development times.

One argument holds that AirSea Battle is an attempt to secure investment in areas of the military that cannot be described as supporting current U.S. campaigns in Iraq, Afghanistan, and against violent extremists. According to this perspective,

¹⁶ Yoichi Kato, "U.S. Commander Says China Aims to be a 'Global Military' Power," *Asahi Shimbun*, December 28, 2010, <http://www.asahi.com/english/TKY201012270241.html> (accessed March 9, 2011).

AirSea Battle is merely providing a justification for weapons platforms such as the F-22 and attack submarines that could continue to operate in an area denial envelope.

The U.S. military will be working within a fiscally constrained (or fiscally informed) environment for at least the immediate future. The significant increase in military size and funding that coincided with the AirLand Battle era is unlikely. In addition, proposals have been made to shift the military from a “forward presence” model to a “surge” model.

One response is increasing force structure, while maintaining current doctrine. By itself, this would be insufficient, as one of the key risks is that to high value units and the embarked personnel.

By conflating AirSea Battle with a “wish list” of technologies to develop and weapons to field, the United States runs the risk of neglecting to develop a true operational concept, which could be implementing using existing force structure and informing the development of a future force structure. Although AirLand Battle was instrumental in guiding the recapitalization of the Army and Air Force in the in 1980’s, it was explicit in pushing for immediate application:

The AirLand Concept is not a futuristic dream to remain on the shelf until all new systems are fielded. For instance, with minor adjustments, corps and divisions can and must begin to learn and practice fighting the AirLand Battle now – during 1981. The payoffs in readiness for combat will be enormous; and implementing the concept today means that we are building the receptacle into which every new system can be plugged immediately, minimizing the build-up time to full capability.¹⁷

¹⁷ *Tradoc Pamphlet 525-5*, 4.

Acceptance and Participation by Allies

The ability to reassure allies in the face of China's growing military capabilities is a driving factor behind AirSea Battle. Without action, countries in the Western Pacific might seek to accommodate the rise in China's relative power in the region, should they find it undesirable or untenable to balance China by increasing their own military capacities. Jose Carreno et al state that:

A growing perception on the part of U.S. allies and potential partners in the region is that American naval and air forces have not kept pace with expanding Chinese military capabilities. The premise of the ASBC in fact rests on this trend. With this perception, countries have started to rethink their political, economic, and military strategies to ensure their continued security and independence as U.S. will, capacity, and capability wane. A serious, sustained commitment to ASBC will reinforce credible U.S. combat power and will assuage and persuade both friend and foe of America's commitment to the region. However, failure to fully embrace and enact the ASBC could have opposite and unforeseeable strategic consequences.¹⁸

The strategic communications of AirSea Battle is to send a clear message of U.S. commitment to allies.

Some claim that allied participation in the concept is vital to the success of AirSea Battle. For instance, CSBA's proposal states:

AirSea Battle must account for geostrategic factors, such as US treaty and legal obligations to defend formal allies and friends in the region, as well. Even more importantly, *AirSea Battle is not a US-only concept*. Allies such as Japan and Australia, and possibly others, must play important enabling roles in sustaining a stable military balance.¹⁹

¹⁸ Carreno et al., 58.

¹⁹ Van Tol et al., xi. The emphasis is Van Tol's.

This is a tenuous assumption, and cannot be taken for granted. There is significant risk in tying the success of AirSea Battle to allied participation. The PRC perceiving an alliance as a critical vulnerability may invite attacks, of a military or non-military nature. Part of the anti-access approach is to prevent the United States from employing forward bases in theater, in part through political means. The United States must counter this via two means: a political approach maintaining or expanding basing access, and a military approach to permit power projection even in the loss or absence of reliable basing. Presenting each nation in the region with a “with us or against us” ultimatum may result in surprising and unfortunate results. Ensuring a unilateral capability to operate in nonpermissive environments may be more palatable to allies, and a more effective deterrent.

Allied enthusiasm for participation in AirSea Battle cannot be taken for granted. Similar to the United States, countries in the Western Pacific are striving to strike a balance between a political and economic policy of engaging with China, and a military policy of deterring and dissuading China. These calculations may dampen enthusiasm for immediate integration into provocative, untested operational concepts. Lessons can be drawn from the marked reluctance of some foreign militaries to participate in the 1000 Ship Navy concept put forward by Admiral Mullen while serving as Chief of Naval Operations.²⁰ Another ill-fated attempt at collective security in Asia was the quadrilateral security agreement negotiated in 2007 between the United States, India, Japan and Australia. This initiative, prompted by the 2006 Princeton Project report, was closely watched by China as an attempt at

²⁰ “The Commanders Respond,” *USNI Proceedings* 132, no. 3 (March 2006): 34-51. <http://www.usni.org/magazines/proceedings/2006-03/commanders-respond> (accessed April 25, 2011).

containment.²¹ Its derailment has been attributed to turnovers in political leadership in Japan and Australia as well as India's aversion to "entangling alliances."²²

In order for AirSea Battle to achieve its goal of providing reassurance to allies of the United States, its contents and tenets must be acceptable to allies. The development of AirSea Battle should take into consideration the concerns of allies, such as possible political or cultural aversions. For example, AirLand Battle was constrained by the aversion of West Germany to ceding territory to a Soviet invasion. This resulted in an emphasis away from defense in depth towards a more offensive-minded philosophy.²³ The CSBA proposal includes "robusting" and distributing bases in countries like Japan, and includes conjecture that the mountainous coastline of Japan would be particularly suited to the construction of underground submarine pens.²⁴ Such significant imposition on allies requires early identification and discussion of their unique concerns.

Prolonged War

CSBA's proposal for AirSea Battle raises the question of whether the concept should include an assumption or even preference that a hostile conflict between the United States and China should be prolonged. CSBA's position is that a prolonged war would favor the United States, permitting reconstitution of forces and

²¹ Rory Medcalf, "Chinese Ghost Story," *The Diplomat*, February 14, 2008.

²² Ibid.

²³ Donn A. Starry, "US and Federal Republic of Germany Doctrine" in *Press On! Selected Works of General Donn A. Starry Volume I*, ed. Lewis Sorley (Fort Leavenworth, Kansas: Combat Studies Institute Press, 2009), 340.

²⁴ Van Tol et al., 92.

mobilization of reserves and industrial capacity.²⁵ Although rooted in the historical U.S. experience in World War I and World War II, there are drawbacks to this assumption. For one, there is doubt whether the United States possesses the ability to maintain public and political resolve for a prolonged shooting war. Carreno et al. question CSBA's reliance upon tactics requiring extended duration for value:

Failing deterrence, the ASBC assumes that a conflict with China would involve a protracted campaign where U.S.-led forces would then sustain and exploit the initiative in various domains, conduct distant blockade operations against ships bound for China, maintain operational logistics, and ramp up industrial production of needed hardware, especially precision-guided munitions. However, it is important to note that in a shorter (and perhaps more likely) conflict, blockade, logistics, and procurement will have minimal impact on the outcome.²⁶

Finally, this approach is conceptually contrary to the philosophy behind the original AirLand Battle that current efforts use as inspiration.

Professor T. V. Paul's study of the initiation of war by weaker powers against stronger ones, previously discussed in Chapter 2 with respect to preemption, cites two key factors in such initiation: belief in the ability to conduct a quick war to present an adversary with a fait accompli that adversary is willing or forced to accept, and a belief in a local, perhaps fleeting military superiority over the adversary.²⁷ CSBA's emphasis on prolonged war would deter China by addressing the first factor; convincing China that the United States possesses the political will and economic robustness to engage in an extended armed conflict that is not in China's interest. A philosophy based on AirLand Battle would instead deter by focusing on the second

²⁵ Van Tol et al., 53.

²⁶ Carreno et al., 58.

²⁷ Paul, 24.

factor. AirLand Battle and its predecessor, Active Defense, stressed the requirement to win the “first battle” in a “come-as-you-are war,” and that the pace of modern battle might not permit time for mobilization.²⁸

Forecasting the effectiveness of either approach on deterring China from an attack is problematic and probably impossible, as it would rely upon an assessment of the calculations of China’s decision-makers. CSBA’s prolonged war approach would require AirSea Battle to comprise a political and economic aspect ill-suited for its place as an operational concept, although it does identify the need for U.S. policies or strategies should relations with China deteriorate into an extended, Cold War-style situation that does not rise to the level of a shooting war. Adopting an approach that the initial phase of a war will be the decisive one, as AirLand Battle did, focuses on the military aspect of the problem that the participants in the AirSea Battle concept development are more suited to provide.

Maritime Blockade

The prospects of maritime blockade figure prominently in both Chinese and U.S. strategic thinking. The United States sees the threat of a Chinese blockade of Taiwan, while China fears a blockade by the United States against its seemingly vulnerable energy supply line from the Middle East. Bruce Blair et al. point out the reasonability of this fear by stating “If the history of U.S. oil diplomacy is any indication, the Chinese have cause for concern. The historical record reveals an American proclivity to embrace oil sanctions and blockades in exercising coercive

²⁸ John L. Romjue, *From Active Defense to AirLand Battle: The Development of Army Doctrine, 1973-1982* (Fort Monroe, VA: Historical Office, United States Army Training and Doctrine Command, 1984), 15-16.

diplomacy.”²⁹ With the sensitivity of both sides to blockade, the threshold for escalation in these cases is extremely low. Although it may be possible for the United States to conduct nonlethal maritime interdiction operations against Chinese shipping, this is viewed as an existential threat by China, and would rapidly escalate to war. China’s navy is assessed to not yet be capable of undertaking a nonlethal option, and thus a blockade initiated by them would have to rely on mines or submarine attack.³⁰

The CSBA concept proposes a distant blockade of China in an extended conflict, taking advantage of the Strait of Malacca chokepoint, well outside the range of any Chinese A2/AD capabilities.³¹ Bruce Blair et al. cite a belief prevalent within the U.S. Navy that it is capable of enforcing such a strict, distant blockade of China’s energy imports by employing forces at strategic chokepoints, while still maintaining the flow of oil imports to U.S. allies in the region.³²

However, executing distant blockade threatens to be extremely and possibly prohibitively difficult in practice, and entails significant risk. Gabriel Collins and William Murray of the U.S. Naval War College identify worldwide diplomatic opposition, alternate maritime routes such as the Lombok and Sunda Straits that would necessitate excessive naval assets to patrol, and the difficulties with dealing with captured vessels and crews as significant challenges to an effective distant

²⁹ Bruce Blair, Chen Yali, and Eric Hagt, “The Oil Weapon: Myth of China’s Vulnerability,” *China Security* (Summer 2006): 39.

³⁰ Ibid., 41.

³¹ Van Tol et al., 76.

³² Blair, Yali, and Hagt, 40.

blockade.³³ Additionally, since much commerce to China is carried aboard non-Chinese flagged vessels, a blockade would need to selectively target shipments based on destination and bills of lading. In modern maritime commerce, however, many such shipments are traded while en route, and bills of lading could be changed both legitimately and deceptively.³⁴ Even a successful blockade may lack the decisive impact CSBA and the U.S. Navy attribute to it. Bruce Blair et al. have calculated that any disruption arising from a geopolitical threat could be managed by China with minimal economic pain,³⁵ Ryan Clarke of the U.S. Army War College's Strategic Studies Institute disputes the assertion that a distant blockade is feasible:

The United States cannot enforce a naval blockade that would meaningfully starve China of energy resources; if it attempted to do so and failed, it would damage the U.S. Navy's prestige (and that of the rest of the military) and would obviously have negative implications for U.S. diplomacy along with its global standing. It would be impossible to know which ships to focus on for the blockade, since a wide variety of flags deliver China's energy resources. This blockage would inevitably harm the energy security of U.S. allies while also severely disrupting the global economy.³⁶

Thomas P. M. Barnett goes a step further to ridicule the CSBA concept of blockade in light of the nature of the maritime trade between the United States and China:

Beyond that fantastic scenario extension lies CSBA's plans to basically destroy the entire Chinese air force and submarine

³³ Gabriel B. Collins and William S. Murray, "No Oil for the Lamps of China?" in *China's Energy Strategy: The Impact on Beijing's Maritime Policies*, ed. Gabriel B. Collins et al. (Annapolis: Naval Institute Press, 2008), 397, 392.

³⁴ Ibid., 392.

³⁵ Blair, Yali, and Hagt, 54.

³⁶ Ryan Clarke, *Chinese Energy Security: The Myth of the PLAN's Frontline Status* (Carlisle, PA: Strategic Studies Institute, August 2010), 26-27.

fleet, plus institute a “distant blockade” that would see us interdict and search – and here the irony balloons – China’s seaborne trade, which ought to be fairly simple since so much of it involves the US economy. And because it’s not easy to stop committed large ships (don’t tell Somalia’s pirates), CSBA broaches the notion of using Air Force bombers to “provide ‘on-call’ maritime strike.” One can only imagine how many thousands of Wal-Mart containers the US military could send to the bottom of the Pacific before the White House would hear some complaints from the US business community.³⁷

Distant blockade is difficult in practice, time-consuming in execution, and potentially not decisive in even an extended conflict. Including it as a feature of AirSea Battle risks expending scarce military resources pursuing an ineffective tool. The United States maintaining it as an option risks provoking a buildup by China to counter an illusory threat.

This chapter has identified some of the risks that developing AirSea Battle runs. These included the risk of AirSea Battle as a strategic communications tool limiting its effectiveness, the risk of AirSea Battle having a negative impact on U.S. relations with China, the risk of nuclear/conventional weapon ambiguity, the risk of provocation by denying sanctuaries in limited conflicts, the expense of resourcing an AirSea Battle concept, the risk of a concept being unacceptable to allies, the risk of a concept losing effectiveness by a reliance upon a protracted war, and the risk of maritime blockade being ineffective. The next chapter will present recommendations intended to address and mitigate these risks.

³⁷ Barnett, “Big-War Thinking,” 3.

CHAPTER 7

RECOMMENDATIONS

The Navy and Air Force's joint AirSea Battle concept is a key operational and tactical component of what must be a larger strategy to maintain a stabilizing influence in the Western Pacific. This strategy must strike a balance between deterring preemptive attacks on U.S. and allied forces, ensuring freedom of action by U.S. forces in the maritime commons, and easing concerns over perceived containment and hegemony.

AirSea Battle is not being developed in a vacuum. Regardless of actual intentions or attempts by the United States to emphasize its applicability to contingencies and adversaries outside of China, AirSea Battle will be interpreted as an effort to counter China's burgeoning military capabilities. This is not a disadvantage, but it introduces risks that must be mitigated. Those developing the concept, and those who will eventually train to and implement the concept, must become aware of the issues and nuances involved.

This paper has identified five potentially destabilizing factors of concern with respect to China's maritime area denial strategy and eight potential risks in the development of the AirSea Battle concept. The recommendations below are intended to address those factors and risks. The United States and China should work together to ease concerns over potentially destabilizing factors in the strategies and outlooks of each, while steps can be taken by the United States to mitigate the risks of concept development and promulgation identified in this paper.

The primary recommendations made here are primarily diplomatic in nature, made both to complement current efforts to develop AirSea Battle and in recognition

that AirSea Battle cannot replace or even drive a larger strategy towards China. The major lines of effort are:

- Review and synchronize strategy with respect to China
- Provide mechanisms for international cooperation and strategic dialogue
- Clarify limits and nature of future conflicts
- Ensure value, acceptability, and credibility of concept content

Review and synchronize strategy with respect to China

To reduce the risks of using AirSea Battle as strategic communications, a coherent and consistent message must be identified and promulgated among elements of the U.S. government. Such a strategic communications plan can serve to counteract any potentially detrimental second order effects of announcing the concept development while maintaining its value as a deterrent to China and reassurance for U.S. allies. There is a critical need to ease concerns over ambiguous strategies. However, articulating a single, consistent strategy for China is understandably difficult, given how the U.S.-China relationship continues to evolve and the ongoing strategy debates within the administration and U.S. policy circles.

U.S. policy with respect to China is described a multitude of ways, and is continuously changing. It is still an open question on what form the future relationship between the two countries will take. The AirSea Battle Concept cannot be completely divorced from U.S. policy, but the two must inform each other. Addressing the risks of introducing AirSea Battle into the world is an opportunity for the United States to set the global agenda now, while its military reach and influence is great and before the uncertainties of a possible sustained period of fiscal constraint.

Provide mechanisms for international cooperation and strategic dialogue

There is a blurring of casus belli that must be resolved through dialogue and possibly formal agreements. For all the advantages of strategic ambiguity, the consequence of unpredictable retaliation is too great to leave unresolved. Clarity and insight is required regarding what each side would interpret as a hostile act, including areas not traditionally considered military, such as cyber and economic, and what actions would prompt escalation. The precedent to avoid is the entry of China into the Korean War, where the diplomatic signals relayed through Indian channels were inadequate and not recognized or given credence.¹

The U.S. call for transparency should be focused upon clarifying intents and insights into Chinese military and political thinking. The aim should be conveyed as expanding understanding, vice collection of intelligence. The current U.S. push for China's transparency in military expenditures and doctrines is excessive, has little chance of success, and appears hypocritical in light of limited American announcements of classified programs and the reluctance to name China as an official military threat. It is also unclear what level of transparency, if any, would ease U.S. concerns.

The U.S. effort in this area has been to increase the number of military-to-military contacts. U.S. military leadership sees these contacts as being historically at the mercy of Chinese reaction to every diplomatic hiccup, and has expressed the desire to see them more permanent and less subject to such winds of change.

¹ Richard W. Stewart, "The Korean War: The Chinese Intervention," U.S. Army Center of Military History, <http://www.history.army.mil/brochures/kw-chinter/chinter.htm> (accessed March 9, 2011).

The United States should ratify the Law of the Sea Convention as soon as possible. This venue would permit the United States to shape interpretations and enforcement of the Convention in the way it was originally intended rather than the reinterpretation advocated and unilaterally imposed by China, with negligible impact on U.S. interests. Opportunities for engagement to reduce sources of tension and clarify intentions include an Incidents at Sea agreement, the establishment and deconfliction of a Chinese Air Defense Interdiction Zone (ADIZ), and a Submarine Movement Advisory Authority (SMAA) agreement.

Clarify limits and nature of future conflicts

In the last few decades there have been substantial changes in the technology, methods, and accepted norms of war between states, and yet very few major, formal update to the law of warfare. Despite persistent doubts in the United States towards the efficacy of such international frameworks, updates are warranted and should be pursued, particularly in the areas of space, cyber, ballistic missiles, and maritime blockade.

The United States should work to establish an international framework for space operations. China has articulated its position against the militarization of space, although it has not established clearly what space platforms would fall into that category. With the substantial U.S. reliance upon space assets, it is to the advantage of the United States to accept China's overtures for a treaty, carefully delineated. The cyber domain is another area in which the United States should seek international agreements on the nature and conduct of warfare. Yet another arises from China's use of the same missile frame as both a nuclear ICBM and a conventional ASBM. A

process for resolving such ballistic missile ambiguity should be put in place, or U.S. concerns be clearly stated to China if such a process is not possible.

As seen in Chapter 6, the use of distant blockade risks being of limited utility in the types of naval conflict most likely between the United States and China. It is thus recommended that the United States not pursue it as a primary component of AirSea Battle. As China is not threatened by any effective blockade, Gabriel Collins and William Murray of the U.S. Naval War College describe an opportunity for improved cooperation:

This suggests that China does not need to build up naval capacity for the purpose of defending energy SLOC against potentially hostile naval forces. Such a realization might recalibrate internal Chinese discussions in ways that increase transparency and engender increased trust between China and concerned regional powers. This in turn potentially opens the door for much more meaningful naval and SLOC security cooperation between the PLAN and other navies.²

The author echoes the advice of Bruce Blair and others in recommending international agreements against the use of maritime blockades in political crises:

A security initiative should in essence distinguish between peacetime measures amongst member states and a 'no first use' policy for blockade in the contingency of an armed conflict. 'No first use' here refers to the following voluntary declaration: not to be the first to use military means to blockade or endanger the international shipping lanes, particularly energy transportation, in times of wars or conflict.³

Blair et al. point out that this policy would be potentially advantageous both for the United States, China, and other nations in the region.⁴

² Collins and Murray, 402.

³ Blair, Yali, and Hagt, 57.

⁴ Ibid.

Ensure value, acceptability, and credibility of concept content

For AirSea Battle to be useful as a deterrent, potential adversaries such as China must believe that the United States has the ability and will to implement it. Elements that appear suspect must be thoroughly explored and evaluated for inclusion into the concept. If they are controversial or counter to current U.S. policy or practice, they either must be omitted or the United States must take steps to make them credible as possible actions. An example of such unprofitable elements include the maritime blockade discussed above. Another is the reliance in CSBA's proposed concept on a prolonged war in support of maritime blockade and increased production of precision munitions. Although the belief in the political and public will to remain firm in a protracted conflict presents a strong deterrent against an adversary, relying upon that endurance as part of an operational concept is misplaced and may not be convincing.

This paper has recommended a comprehensive review of U.S. strategy towards China, expanding mechanisms for cooperation and dialogue, the clarification of limits on future conflicts, and a close review of AirSea Battle development to ensure that the final concept is valuable, acceptable, and credible. These actions should prove beneficial in setting the stage for the debate which is to come, when the Navy/Air Force initial concept for AirSea Battle is released, examined, and proceeds on a journey to becoming doctrine. The concluding chapter will explore the use of AirSea Battle as a tool in what will be the most important international relationship in this century: that between the United States and China.

CHAPTER 8

CONCLUSION

AirSea Battle is both necessary and appropriate. Metrics must be developed to assess the concept, short of its use in combat. ASB must be a compatible and complementary part of two larger strategies, one to ensure access and freedom of movement for U.S. forces, and another to engage China as a partner in maintaining world security.

The United States must continue to maintain a forward presence in the Western Pacific to reassure allies and maintain stability in the region. This entails both the will to operate in a higher-risk threat environment and the ongoing development of tactics to defeat those threats if called to do so. Announcing the development of AirSea Battle effectively bought the United States time and began a needed debate over possible contents of the concept in public channels to augment the official, classified effort by the services based on the combatant commanders needs. This debate must continue.

AirSea Battle is a recognition of China's ambitions and capacity, and an anticipation of their abilities and capabilities growing to match them. China is the most populous country in the world and the world's second largest economy. China may desire to avoid attention and bide its time, but its trajectory warrants attention. It has a closed military culture resistant to military-to-military relations, and readily severs what relations it has at the slightest provocation. After the United States, it has the highest military expenditures in the world, magnified by a distinct advantage in purchasing power, the possibility of unreported expenditures due to lack of

transparency, and the fact that China is not incurring the costs of global military deployments and engagements. China is at a critical point in its history and must be managed wisely, as it moves from a regional power to a global, status quo power. Its potential and warfighting innovations are what are attracting the attention and sparking the imagination of American officers, analysts, and theorists. As the debate on the future role of American power continues, and economic realities become sharper, the era of American military power being incapable of being rivaled by any other nation may be coming to an end, either by choice or by confluence of events. Since the fall of the Soviet Union and its maritime reconnaissance-strike complex, the United States Navy has been accustomed to steaming its carriers right up to a coast in support of operations deep inland anywhere on the planet. China is the first nation with the inclination, ability and will to seriously challenge this practice, but they will not be the last. The development of AirSea Battle is a recognition of this fact.

Thomas P. M. Barnett, generally an outspoken proponent of accommodating China's rise, claims:

ASBC can be viewed as America's effective "nudge" to the Chinese: signaling the threat of, "Don't make me come over there!" while the US military continues to offer strategic cooperation in other areas, such as sea land security and antipiracy missions.¹

But he cautions that AirSea Battle is not sufficient in itself:

The ASBC is hardly a check-mating move, however, and is better characterized as a bare-minimum response designed to the [sic] keep the board in play. By doing so, the US is signaling to the Chinese the impossibility of a lightning-strike victory. As [Michael] McDevitt [of the Center for Naval

¹ Barnett, "Big-War Thinking," 3.

Analyses] commented in a recent interview, the ASBC “just preserves our ability *not* to be run out of Dodge by China.”²

Although on the surface AirSea Battle is difficult to mesh with U.S. policy, it is not disconnected from U.S. strategy, and does not have to be diplomatically destabilizing. AirSea Battle is *not* foreign policy. It cannot be a replacement for national strategy or policy, but rather maintains military options for decision makers. There will be concern that the concept can be interpreted as having a destabilizing effect similar to that ascribed to SDI and other BMD initiatives, in that it is needlessly offensive and removes the assurances of mutual deterrence. AirSea Battle must work just as well with policies of engagement, deterrence, or even containment, as U.S. administrations and policies change or evolve, to guide doctrine, experimentation, training, and acquisitions.

Through public announcements of the effort, leadership in the Department of Defense have indicated their intention to use it for strategic communications purposes, to shape, deter, and dissuade potential adversaries and to reassure allies.

Doctrine and operational concepts must transcend policy and prepare for contingencies over the scale of decades. China provides a focus for this. The timeframe needed for recapitalization of military forces, particularly new ships and aircraft; the trajectory of China relative to the United States; and the leapfrogging aspirations of China’s military all demand an operational concept to guide U.S. development and build the required institutional experience in U.S. ranks.

The timeline required for recapitalization of modern military forces is so long that it must account for unseen challenges and transcend continuously fluctuating

² Barnett, “Big-War Thinking,” 6.

diplomatic policies and strategic communications. For instance, the Navy has started funding for the SSBN(X), a new class of missile submarine, of which the Navy's shipbuilding plan has procurement of the first hull in 2019. This class of ship is planned to be in service until at least the year 2073.³ Accurately determining the security environment and corresponding military requirements over sixty years into the future is difficult. China may be being used as a forcing function for modernization, but limiting long term options based on nuances of the moment is shortsighted.

In summary, the announcement of the development of AirSea Battle commits the United States military to producing an innovative, acceptable, effective concept, or losing prestige and support if it cannot. By publicizing the effort and naming it even before it had content, the United States risked overshadowing AirSea Battle by using it as a strategic communications tool, and by appealing to the reputation of a previously successful concept, AirLand Battle, that it may not end up resembling in form, function, philosophy, or genesis. Developing AirSea Battle as a multi-service operational concept is a necessary and appropriate method to counter China's maritime area denial strategies and capabilities. These strategies and capabilities are real, and pose a potential, if still nascent and manageable, threat to U.S. interests.

³ Ronald O'Rourke, *Navy SSBN(X) Ballistic Missile Submarine Program: Background and Issues for Congress* (Washington, D.C.: Congressional Research Service, October 28, 2010), 1, 10.

GLOSSARY

A2/AD	Anti-Access/Area Denial
ADIZ	Air Defense Interdiction Zone
AFCEA	Armed Forces Communications and Electronics Association
ASAT	Anti-Satellite
ASBC	AirSea Battle Concept
ASBM	Anti-Ship Ballistic Missile
ASCM	Anti-Ship Cruise Missile
BMD	Ballistic Missile Defense
BNS	Beidou Navigation System
CCP	Chinese Communist Party
CNO	Chief of Naval Operations
CONOPS	Concept of Operations
CSBA	Center for Strategic and Budgetary Assessments
DDG	Guided-Missile Destroyer
DOD	Department of Defense
DOTMLPF	Doctrine, Organization, Training, Material, Leadership, Personnel, Facilities
EEZ	Exclusive Economic Zone
FFG	Guided-Missile Frigate
GPS	Global Positioning System
ICBM	Intercontinental-Range Ballistic Missile
ISR	Intelligence, Surveillance, and Reconnaissance

JOC	Joint Operating Concept
JOpsC-DP	Joint Operations Concept Development Process
NDS	National Defense Strategy
NMS	National Military Strategy
NSS	National Security Strategy
PLA	People's Liberation Army
PLAAF	People's Liberation Army Air Force
PLAN	People's Liberation Army Navy
PRC	People's Republic of China
QDR	Quadrennial Defense Review
RMA	Revolution in Military Affairs
SAM	Surface-to-Air Missile
SDI	Strategic Defense Initiative
SLBM	Submarine-Launched Ballistic Missile
SLOC	Sea Line of Communication
SMAA	Submarine Movement Advisory Authority
SRBM	Short-Range Ballistic Missile
SS	Diesel-Electric Attack Submarine
SSBN	Nuclear-Powered Ballistic Missile Submarine
SSN	Nuclear-Powered Attack Submarine
UAV	Unmanned Aerial Vehicle
UN	United Nations
UNCLOS	UN Convention on the Law of the Sea

BIBLIOGRAPHY

- The AirLand Battle and Corps 86: Tradoc Pamphlet 525-5*. Fort Monroe, Virginia: United States Army Training and Doctrine Command, 1981.
- Baldwin, Hanson W. *Sea Fights and Shipwrecks*. New York: Hanover House, 1956.
- Barnett, Thomas P. M. *Blueprint for Action*. New York: G. P. Putnam's Sons, 2005.
- . "Big-War Thinking in a Small-War Era: The Rise of the AirSea Battle Concept." *China Security* 6, no. 3 (2010): 3-11.
- . "TIME on PACOM versus WAPO on PRC's DF-21D." Thomas P. M. Barnett's Globlogization, entry posted December 29, 2010. <http://globlogization.wikistrat.com/globlogization/2010/12/29/time-on-pacom-versus-wapo-on-prcs-df-21d.html#ixzz1GDBtIIVM> (Accessed March 10, 2011).
- Blair, Bruce, Chen Yali, and Eric Hagt. "The Oil Weapon: Myth of China's Vulnerability." *China Security*, Summer 2006.
- Bodeen, Chistopher. "Chinese Stealth Fighter Makes First Test Flight." *Washington Post*, January 11, 2011.
- Braisted, William R. "On the American Red and Red-Orange Plans, 1919-39," In *Naval Warfare in the Twentieth Century, 1900-1945*, edited by Gerald Jordan, 167-185. London: Croom Helm, 1977.
- Brown, Peter J. "China's pro-missile navy sinks carriers." *Asia Times Online*, July 23, 2010. <http://www.atimes.com/atimes/China/LG23Ad01.html> (accessed April 25, 2011).
- . "Gates closed out of China." *Asia Times Online*, June 12, 2010. <http://www.atimes.com/atimes/China/LF12Ad02.html> (accessed April 25, 2011).
- Bruzdzinski, Jason E. "Demystifying Shashoujian: China's 'Assassin's Mace' Concept," In *Civil-Military Change in China: Elites, Institutes, and Ideas After The 16th Party Congress*, edited by Andrew Scobell and Larry Wortzel, 309-364. Carlisle, PA: Strategic Studies Institute, 2004. http://www.mitre.org/work/best_papers/04/bruzdzinski_demystify/bruzdzinski_demystify.pdf (accessed April 25, 2011).
- Bunker, Robert. "Beijing, Unrestricted Warfare, and Threat Potentials." Testimony, meeting of the U.S.-China Economic and Security Review Commission, 29 March 2007. http://www.uscc.gov/hearings/2007hearings/transcripts/mar_29_30/bunker.pdf (accessed April 25, 2011).

- Carreno, Jose, Thomas Culora, George Galdorisi, and Thomas Hone. "What's New About the AirSea Battle Concept?" *USNI Proceedings* 136, no. 8 (August 2010). <http://www.usni.org/print/6245> (accessed April 25, 2011).
- Cavas, Christopher. "USAF, U.S. Navy to Expand Cooperation." *Defense News*, 9 November 2009.
- Cheng, Dean. "The Chinese Space Program: A 21st Century 'Fleet in Being'?" In *A Poverty of Riches: New Challenges and Opportunities in PLA Research*, edited by J. Mulvenon and A. D. Yang, 39-62. Santa Monica: RAND, 2003.
http://www.rand.org/pubs/conf_proceedings/CF189.html (accessed April 25, 2011).
- "Chinese Poker." *The Economist*, April 17, 2001. <http://www.economist.com/node/576103> (Accessed March 13, 2011).
- Clark, Vern. *CNO Guidance for 2003*. Washington, D.C.: Department of Defense, 2003.
<http://www.navy.mil/navydata/cno/clark-guidance2003.html> (accessed April 25, 2011).
- Clarke, Richard. "War from Cyberspace." *The National Interest*, December 12, 2009.
<http://www.nationalinterest.org/Article.aspx?id=22340> (accessed April 25, 2011).
- Clarke, Ryan. *Chinese Energy Security: The Myth of the PLAN's Frontline Status*. Carlisle, PA: Strategic Studies Institute, August 2010.
- Cliff, Roger, Mark Burles, Michael Chase, Derek Eaton, and Kevin Pollpeter. *Entering the Dragon's Lair: Chinese Antiaccess Strategies and Their Implications for the United States*. Santa Monica, CA: RAND Corporation, 2007.
- Cole, Bernard D. *The Great Wall at Sea: China's Navy in the Twenty-First Century*. 2nd ed. Annapolis, Maryland: Naval Institute Press, 2010.
- Collins, Gabriel B., Andrew S. Erickson, and Lyle J. Goldstein, "Chinese Naval Analysts Consider the Energy Question." In *China's Energy Strategy: The Impact on Beijing's Maritime Policies*, edited by Gabriel B. Collins, Andrew W. Erikson, Lyle J. Goldstein, and William S. Murray, 299-335. Annapolis: Naval Institute Press, 2008.
- Collins, Gabriel B. and William S. Murray, "No Oil for the Lamps of China?" In *China's Energy Strategy: The Impact on Beijing's Maritime Policies*, edited by Gabriel B. Collins, Andrew W. Erikson, Lyle J. Goldstein, and William S. Murray, 387-407. Annapolis: Naval Institute Press, 2008.
- "The Commanders Respond," *USNI Proceedings* 132, no. 3 (March 2006): 34-51.
<http://www.usni.org/magazines/proceedings/2006-03/commanders-respond> (accessed April 25, 2011).

- Cook, Malcom, Raoul Heinrichs, Rory Medcalf, and Andrew Shearer. *Power and Choice: Asian Security Futures*. Double Bay, New South Wales: Lowy Institute for International Policy, June 2010. http://asiasecurity.macfound.org/images/uploads/blog_attachments/Asian_security_futures_-_final_version.pdf (accessed April 25, 2011).
- Corn, Tony. "Peaceful Rise through Unrestricted Warfare: Grand Strategy with Chinese Characteristics." *Small Wars Journal* (June 5, 2010). <http://smallwarsjournal.com/blog/journal/docs-temp/449-corn.pdf> (accessed April 25, 2011).
- Cronin, Audrey Kurth. "Cyber-Mobilization: The New Levee en Masse." *Parameters*, Summer 2006. http://findarticles.com/p/articles/mi_m0IBR/is_2_36/ai_n16689901/ (accessed April 25, 2011).
- Department of Defense. *2010 Quadrennial Defense Review Report*. Washington, DC: Department of Defense, 2010.
- Ehrhard, Thomas and Robert Work. *Range, Persistence, Stealth, and Networking: The Case for a Carrier-Based Unmanned Combat Air System*. Washington, D.C.: Center for Strategic and Budgetary Assessments, 2008. http://www.csbaonline.org/4Publications/PubLibrary/R.20080618.Range_Persistence_/R.20080618.Range_Persistence_.pdf (accessed April 25, 2011).
- Erickson, Andrew S. "New U.S. Maritime Strategy: Initial Chinese Responses." *China Security* 3, no.4 (Autumn 2007): 40-61.
- Feng Huang Wei Shih Chung Wen Tai, "Peter Chiu's Talk," Translated by Open Source Center. Hong Kong Phoenix TV Chinese Channel, October 1, 2009.
- Gertz, Bill. "China Sub Secretly Stalked U.S. Fleet." *Washington Times*, November 13, 2006.
- . "Inside the Ring: China Policy Fight." *Washington Times*, October 21, 2010.
- Gong, Gerrit. "The Beginning of History: Remembering and Forgetting as Strategic Issues." *The Washington Quarterly*, Spring 2001. <http://www.twq.com/01spring/gong.pdf> (accessed March 13, 2011).
- Halloran, Richard. "AirSea Battle." *Air Force Magazine*, August 2010.
- Howarth, Peter. *China's Rising Sea Power: The PLA Navy's Submarine Challenge*. London: Routledge, 2006.
- Hurd, Archibald and Henry Castle. *German Sea-Power: Its Rise, Progress, and Economic Basis*. London: John Murray, 1913.
- IHS Jane's Online*.

- Information Office of the State Council of the People's Republic of China. *China's National Defense in 2008*. Beijing: Foreign Languages Press, 2009.
- Johnston, Alastair Iain. "Towards Contextualizing the Concept of a Shashoujian (Assassin's Mace)." Harvard University, 2002. <http://www.people.fas.harvard.edu/~johnston/shashoujian.pdf> (accessed October 18, 2010).
- Karadeniz, Tulay. "Turkey Says Anti-Missile System Should Not Single Out Iran." *Reuters.com*, October 18, 2010. <http://www.reuters.com/article/2010/10/18/us-nato-defence-turkey-idUSTRE69H3BX20101018> (accessed April 25, 2011).
- Kato, Yoichi. "U.S. Commander Says China Aims to be a 'Global Military' Power." *Asahi Shimbun*, December 28, 2010. <http://www.asahi.com/english/TKY201012270241.html> (accessed April 25, 2011).
- Keegan, John. *Intelligence in War*. New York: Alfred A Knopf, Random House, 2003).
- Kraska, James. "How the United States Lost the Naval War of 2015." *Orbis*, Winter 2010. <http://www.fpri.org/orbis/5401/kraska.navalwar2015.pdf> (accessed April 25, 2011).
- Krepinevich, Andrew F. *7 Deadly Scenarios: A Military Futurist Explores War in the 21st Century*. New York: Bantam Books, 2009.
- . "The Pentagon's Wasting Assets." *Foreign Affairs* 88, no. 4 (July-August 2009): 1-10.
- . *Why AirSea Battle?* Washington, DC: Center for Strategic and Budgetary Assessments, 2010. <http://www.csbaonline.org/publications/2010/02/why-airsea-battle/> (accessed April 25, 2011).
- Li Xiaokun and Ma Liyao. "Pentagon Report on PLA 'Unprofessional'." *China Daily*, August 18, 2010. http://www.chinadaily.com.cn/china/2010-08/18/content_11167080.htm (accessed April 25, 2011).
- Liang Jiawen and Yu Shengnan. "China Can Regard United States as 'Teacher' for Sea Power Development." Translated by Open Source Center. *Beijing Guoji Xianqu Daobao Online*, August 25, 2010.
- Libicki, Martin. "Cyberwar and Cyberdeterrence: How Worried Should We Be?" In *RAND Project Air Force Annual Report 2010*, 6-11. Santa Monica, CA: RAND Corporation, 2010.
- Liu Wei. "United States Vigorously Develops Unmanned Undersea Vehicles to Respond to China's Submarines." Translated by Open Source Center. In *Naval and Merchant Ships*, November 2010, 58-62.

- McChrystal, Stanley A. *Chairman of the Joint Chiefs of Staff Instruction 3170.01G Joint Capabilities Integration And Development System*. Washington, D.C.: Joint Staff, 1 March 2009.
- McDevitt, Michael. "Roundtable Net Assessment – Objective Conditions versus the US Strategic Tradition." In *Asia and the Pacific: US Strategic Traditions and Regional Realities* edited by P.D. Taylor, 101-105. Newport, RI: Naval War College Press, 2001.
<http://www.dtic.mil/cgi-bin/GetTRDoc?Location=U2&doc=GetTRDoc.pdf&AD=ADA421946> (accessed April 25, 2011).
- Medcalf, Rory. "Chinese Ghost Story." *The Diplomat*, February 14, 2008.
- Medeiros, Evan S. "Undressing the Dragon: Researching the PLA Through Open Source Exploitation" In *A Poverty of Riches: New Challenges and Opportunities in PLA Research*, edited by James C. Mulvenon and Andrew N. D. Yang, 119-168. Santa Monica, CA: RAND Corporation, 2003.
- Ministry of National Defense of the Republic of Korea. *Joint Investigation Report: On the Attack Against ROK Ship Cheonan*. Seoul: Myungjin Publication Inc., 2010.
<http://www.nautilus.org/publications/essays/napsnet/reports/Cheonan.pdf> (accessed April 25, 2011).
- Mullen, Michael G. *The National Military Strategy of the United States of America*. Washington, D.C.: Chairman of the Joint Chiefs of Staff, February 8, 2011.
- Muradian, Vago. "China Tried to Blind U.S. Sats with Lasers," *Defense News*, September 25, 2006.
- Myers, Richard B. *The National Military Strategy of the United States of America*. Washington, D.C.: Chairman of the Joint Chiefs of Staff, 2004.
- Nair, V. K. *War in the Gulf: Lessons for the Third World*. New Delhi: Lancer International, 1991.
- Obama, Barack. *The National Security Strategy of the United States of America*. Washington, DC: The White House, 2010.
- Office of the Secretary of Defense. *Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2010*. Washington, DC: Office of the Secretary of Defense, 2010.
- O'Rourke, Ronald. *China Naval Modernization: Implications for U.S. Navy Capabilities—Background and Issues for Congress*. Washington, D.C.: Congressional Research Service, February 3, 2011. http://assets.opencrs.com/rpts/RL33153_20110203.pdf (accessed April 25, 2011).

- . *Navy SSBN(X) Ballistic Missile Submarine Program: Background and Issues for Congress*. Washington, D.C.: Congressional Research Service, October 28, 2010. <http://www.fas.org/sgp/crs/weapons/R41129.pdf> (accessed April 25, 2011).
- Pace, Peter. *Chairman of the Joint Chiefs of Staff Instruction 3010.02B: Joint Operations Concepts Development Process*. Washington, D.C.: Joint Staff, January 27, 2006.
- Paul, Thazha V. *Asymmetric Conflicts: War Initiation by Weaker Powers*. Cambridge: Cambridge University Press, 1994.
- Pillsbury, Michael. *China's Military Strategy Towards the US: A View from Open-Sources*. N.p.: U.S.-China Economic and Security Review Commission, 3 August 2001. http://www.uscc.gov/researchpapers/2000_2003/pdfs/strat.pdf (accessed April 25, 2011).
- Prabhakar, Lawrence W., Joshua Ho, and W. S. G. Bateman, eds. *Evolving Maritime Balance of Power in the Asia-Pacific: Maritime Doctrines and Nuclear Weapons at Sea*. River Edge, NJ: World Scientific, 2006.
- Romjue, John L. *From Active Defense to AirLand Battle: The Development of Army Doctrine, 1973-1982*. Fort Monroe, VA: Historical Office, United States Army Training and Doctrine Command, 1984.
- Ross, Robert S. "The 1995-1996 Taiwan Strait Confrontation: Coercion, Credibility, and Use of Force," *International Security*, Fall 2000, pp.87-123. <http://www.people.fas.harvard.edu/~johnston/GOV2880/ross3.pdf> (accessed April 25, 2011).
- Qiao Liang and Wang Xiangsui. *Unrestricted Warfare*. Translated by Open Source Center. Beijing: PLA Literature and Arts Publishing House, 1999.
- Ramo, Joshua Cooper. *The Beijing Consensus*. London: The Foreign Policy Centre, 2004. <http://fpc.org.uk/fsblob/244.pdf> (accessed April 25, 2011).
- Romjue, John L. *From Active Defense to AirLand Battle: The Development of Army Doctrine, 1973-1982*. Fort Monroe, VA: Historical Office, United States Army Training and Doctrine Command, 1984.
- Sayers, Eric. "Military Dissuasion: A Framework for Influencing PLA Procurement Trends." *Joint Forces Quarterly* 58 (3rd quarter 2010): 89-93.
- Sharma, Amol, Jeremy Page, James Hookway and Rachel Pannett. "Asia's New Arms Race." *Wall Street Journal*, February 12, 2011. <http://online.wsj.com/article/SB10001424052748704881304576094173297995198.html> (accessed April 25, 2011).

- Starry, Donn A. "US and Federal Republic of Germany Doctrine" in *Press On! Selected Works of General Donn A. Starry Volume I*, edited by Lewis Sorley, 335. Fort Leavenworth, Kansas: Combat Studies Institute Press, 2009.
- Stewart, Richard W. "The Korean War: The Chinese Intervention." U.S. Army Center of Military History. <http://www.history.army.mil/brochures/kw-chinter/chinter.htm> (accessed March 9, 2011).
- Talmadge, Eric. "Japan Sees Testing Stealth Jet In 2014." *Washington Times*, March 9, 2011, 7.
- Tan Zhujie, Fang Huijun, and Duan Congcong. "Washington Times Harbors 'Ulterior Motive' to Undermine Sino-US Interaction." Translated by Open Source Center. *Beijing Huanqiu Shibao*, November 14, 2006.
- Tyson, Ann Scott. "China Draws U.S. Protest Over Shadowing of Ships." *Washington Post*, March 10, 2009.
- United States Air Force. *Cyberspace Operations: Air Force Doctrine Document 3-12*. N.p.: United States Air Force, July 15, 2010. <http://www.fas.org/irp/doddir/usaf/afdd3-12.pdf> (accessed April 25, 2011).
- United States Navy, Marine Corps, and Coast Guard. *A Cooperative Strategy for 21st Century Seapower*. Washington, D.C.: Department of the Navy, October 2007. <http://www.navy.mil/maritime/MaritimeStrategy.pdf> (accessed April 25, 2011).
- United States Navy. "US Navy Biographies - The Honorable Robert O. Work." United States Navy. <http://www.navy.mil/navydata/bios/navybio.asp?bioID=507> (accessed March 9, 2011).
- Van Tol, Jan, Mark Gunzinger, Andrew Krepinevich, and Jim Thomas. *AirSea Battle: A Point-of-Departure Operational Concept*. Washington, DC: Center for Strategic and Budgetary Assessments, 2010. <http://www.csbaonline.org/wp-content/uploads/2010/05/2010.05.18-AirSea-Battle.pdf> (accessed April 25, 2011).
- Vego, Milan. *Joint Operational Warfare: Theory and Practice*. Newport: U.S. Naval War College, 2007.
- Walker, Martin. "Walker's World: China's war chest." *UPI.com*, May 23, 2007. http://www.upi.com/Business_News/Security-Industry/2007/05/23/Walkers-World-Chinas-war-chest/UPI-10421179950404/ (accessed April 25, 2011).
- Wohlstetter, Roberta. *Pearl Harbor: Warning and Decision*. Stanford: Stanford University Press, 1962.

- Woolf, Amy F. *Conventional Prompt Global Strike and Long-Range Ballistic Missiles: Background and Issues*. Washington, D.C.: Congressional Research Service, October 25, 2010.
- Work, Robert O. and Jan van Tol. *A Cooperative Strategy for 21st Century Seapower: An Assessment*. Washington, D.C.: Center for Strategic and Budgetary Assessments, March 26, 2008.
- Wu Lei and Shen Qinyu. “Will China Go to War Over Oil?” *Far Eastern Economic Review*, April 2006.
- Xiaofeng, Ren and Cheng Xizhong, “A Chinese Perspective,” *Marine Policy* 29 (2005). <http://www.southchinasea.org/docs/ScienceDirect%20-%20Marine%20Policy%20%20A%20Chinese%20Perspective.htm> (accessed April 25, 2011).
- Yoshihara, Toshi and James R. Holmes. *Red Star Over the Pacific: China’s Rise and the Challenge to U.S. Maritime Strategy*. Annapolis: Naval Institute Press, 2010.
- Zakaria, Fareed. *The Post-American World*. London: W. W. Norton & Company Ltd., 2009.
- Zhang Yongjin. “Chinese Analysts Dissect The U.S. National Security Strategy 2010” *EAI Background Brief No. 543*. July 15, 2010. <http://www.eai.nus.edu.sg/BB543.pdf> (accessed April 25, 2011).

VITA

Lieutenant Commander Daniel McAuliffe graduated from Northeastern University in 1998 with a Bachelor of Science in Mechanical Engineering and was commissioned in the United States Navy in 1999 through Officer Candidate School. He completed the Naval Nuclear Power training pipeline in 2000 and reported to his first sea assignment onboard the USS TUCSON (SSN 770) in January 2001. While assigned to TUCSON he deployed to the Western Pacific and served as the Reactors Control Assistant and Assistant Weapons Officer. In March 2004 he reported to Commander, Submarine Group Seven in Yokosuka, Japan as Watch Officer and Assistant Theater Anti-Submarine Warfare Officer. In 2006 he reported to the USS HOUSTON (SSN 713), forward deployed in Guam, as Communications Officer. In 2007 LCDR McAuliffe attended the Submarine Officer Advanced Course (SOAC), following which he reported to the USS COLUMBUS (SSN 762) where he served as Navigator and Operations Officer until June 2010. During his time onboard the COLUMBUS, LCDR McAuliffe completed two deployments to the Western Pacific.